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Labor Backs National Forest Conservation

Canadian Pulp and Paper Workers Approve Better and More Complete Forest Protection — More Paper and Less Pulp Plan — Mill Unions Ask Reforms — Big New Linerboard Plant — Other News.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., July 30, 1945—Perhaps the most significant indication yet to hand of the broadening sweep of the national campaign for forest conservation is that fact that spokesmen for organized labor in Quebec have made it known that if their opinion is to be a guide the province will soon enjoy the fullest degree of forest protection and the most modern forest management. This has been announced by Philippe Lessard, president of the National Federation of Pulp and Paper Workers, who, in writing to the Canadian Forestry Association in Montreal, says:

"The greatest industry in Quebec is the manufacture of forest products. Unlike metal and most textile industries, the raw material of paper-making and lumber mills can be demoralized by fire or broken down by bad forest management. Labor wants permanence in the same way that industry does. We believe that far greater employment must some day come to Quebec from new industrial processes based upon wood as the raw material. That is why the pulp and paper worker takes a personal and patriotic interest in public forest policy.

"Quebec can feed all her mills in perpetuity by growing more timber. That means a higher competence in forest management than we now have, and it means, too, the cancelling of forest fires. There is no sound reason why Quebec should have even 50% of the fires she now tolerates. To rid the province of this plague requires only the determined organization and technique that we now give to public health, the increasing success of which everyone applauds."

Move to Ban Political Management

Meanwhile forestry conservation forces here are finding welcome stimulus in a new organization, a "Save the Forests League," which has started a campaign of its own in Ontario, with the object of securing in that province the appointment of a non-political commission to control the revenues from and the expenditures on the forests and lay down a long-term policy of forest management that will not be disturbed or set aside with each change of government.

This is an ideal towards which public opinion is undoubtedly moving in Quebec, where in the past revenues from forests have been too much regarded from the point of view of general political expenditure and the rival claims of colonization have been pushed to the point where forest destruction has been exploited. While not insensible to their own shortcomings, Quebec authorities are alive to the fact that considerable menace to Quebec forests has come from loose management, or lack of management, of Ontario forests, especially in the matter of pests and fires. In the first of what is to be a series of monthly bulletins the new "Save the Forests League," which says it will expose "the facts," declares that a do-nothing forestry policy has been in vogue in Ontario for 100 years; that for nine years, during which 50,000 square miles of forests were infected, nothing was done about the spruce budworm pest; and that reforestation operations have been so pitifully small that in one year alone forest fires in Ontario burned ten times the area reforested in the last 35 years.

How this has affected Quebec is seen in the fact that the spruce budworm pest has spread into Quebec from infected areas in Ontario and in the fact that the great mining developments in Northern Ontario have been accompanied by the most disastrous fires in that region in the modern history of Canada—fires which have lapped over into Quebec and threatened the destruction here of a vast forest domain. Ontario and Quebec are now both co-operating with the Dominion Government's effort to stamp out the spruce budworm by airplane spraying with DDT, and both, as a result of bitter experience, are exercising more control over prospectors who, it is suspected, may have deliberately set fires that got out of control as a quick way of uncovering mineral-bearing outcrops in the thickly-timbered Great Clay Belt in which many of the larger mining industries of the north have been developed.

Papermill Unions Ask Reforms

Following the recent convention of the Quebec Council of Papermill Unions in Quebec City, it has been made known that the resolutions adopted called for, among other things, the abolition of work on Sundays, the payment of the same salaries to Quebec workers as to workers in other provinces, and the establishment of an urban credit for the construction of workers' houses.

More Paper, Less Pulp

The more paper, less pulp, program agreed upon between the Canadian and U. S. authorities, as a means whereby Canada can ship 22,000 tons of newsprint per month to the United States, is now having its effect on operations here. The latest figures available for Canadian exports—those for June—show the tendency in this direction. The value of shipments of newsprint exported rose from $14,391,000 to $14,765,000, while wood pulp recorded a decline from $9,045,000 to $8,875,000. At the same time there was

(Continued on page 14)

Midwest Reports Slight Market Improvement

Outlook Viewed As More Encouraging For Larger Paper Supply — Waste Paper Collections Show Gain — Western Salesmen Play Golf At Olympia, August 8 — Report Hoarding of Waste Paper.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 30, 1945—Conditions continue to be slightly better in the Chicago area as the basic pulp situation is reported somewhat easier. The easy condition, slight as it is, is having thus far only a psychological effect on hard pressed mill representatives and jobbers in this area. Arrivals of Swedish pulp in the American market, a bit negligible as to amount but there just the same, has helped to engender a better feeling although the OPA situation in this country may block much relief in this quarter because American ceilings are said to be inadequate to compensate shippers for the costs involved.

While general market conditions were little changed the fact remains that waste paper collections were somewhat improved both because of the weather and "amateur" drives which continue to get surprising results. Even so, mill inventories are reported extremely low and any material decline in the salvage program would be expected to produce unfortunate results.

Launch Community Drive

With Walter P. Paepcke, chairman of the board of the Container Corporation of America, as its general chairman, the Community and War Fund Drive for Chicago will get under way very shortly with a $13,040,700 goal ahead of it. The amount is $60,000 more than last year. "This year we must provide aid for war torn nations we could not reach last year," said Mr. Paepcke. "And we have to enlarge our services at home to meet changing conditions." The goal was announced at a meeting of the Community Funds business division held this week at the Palmer House in Chicago. Many paper executives and representatives of Chicago sales organizations are already slated for important tasks in connection with the drive which is scheduled to wind up by Christmas time.

Visit Eastern Mill

M. E. McGarry, manager of the Chicago district sales office of the Eastern Company, 111 W. Washington street, will leave next week for the annual sales conference and meeting of the company to be held at the mills in Bangor, Maine, August 6 and 7. Representatives of district sales offices from all parts of the country will be in attendance. Accompanying Mr. McGarry will be LeRoy C. Petty, new owner of the Indiana Paper Company of Indianapolis, Indiana, and his wife. Mr. Petty, for many years with the Atlanta, Georgia, branch of the Whitaker Paper Company, has just purchased the company from F. J. Ostermeyer who for many years owned and operated the Indiana firm which is the Eastern products distributor in this neighboring state.

Hoard Waste Paper for Fall

William Bennett, chairman of the current summer playground waste paper drives for Chicago, reported this week that hoarding of waste paper in garages and basements for next fall's city and suburban school campaigns was really putting a crimp in collections. He said that there were several instances where groups and individuals had collected good sized quantities of waste paper to help the school children make records when the regular sessions reconvene. "While this will help build up impressive collection figures in the fall," he said, "it delays use of the paper as container for war materials. Waste paper is needed now. We ought to concentrate on the summer campaign and let the fall take care of itself."

Hold Final Western Golf Outing

The western division of the Salesmens Association of the Paper Industry expects an unusually large attendance at its final golf outing to be held at the Olympia Fields Country Club on August 8. Despite vacations, Jim Sensenbrenner, golf chairman, is counting on a good turnout for lunch, golf, dinner and the usual informal sing fest and awarding of prizes afterwards. Some extra features as yet announced have been reported here and there in Chicago sales offices.

F. J. Foley to Rockwell-Barnes

Frank J. Foley, for a number of years, sales manager of the Blandin Paper Company, has recently joined the Rockwell-Barnes Company as a member of its executive family. This publication announced Mr. Foley's resignation from the Blandin organization three weeks ago. Mr. Foley, widely known in local paper circles, will develop mill contacts for Rockwell-Barnes who carry a representative line of fine papers and paper specialties. Office specialties also constitute an important part of the R-B line.

T. H. Mittendorf Elected Vice President

T. H. Mittendorf, for a number of years secretary of the Mid-States Gummed Paper Company, was recently elected a vice president of that organization. Mr. Mittendorf became associated with Mid-States as general manager in 1940 after nearly twenty years of service to the paper industry. He is known for his contribution to sales training courses for members of the paper industry, a course series developed through the Paper and Twine Association.

May Shipment Index at 180

WASHINGTON, D. C., Aug. 1, 1945—May index number for value of paper mill shipments was 180 this year compared with 174 May of last year and 187 in April this year taking any average month of 1939 at 100 says the industry survey of the Department of Commerce.

Also in May this year the index of the value of paper mill inventories was 134.3 compared with 134.2 in April and 138.8 in May last year.

Maj. Tayloe Returns from Service

MEMPHIS, Tenn., July 25, 1945—Major Howard Tayloe, vice-president of Tayloe Paper Company, has been released by the Army and after spending a few weeks with his parents at Walloon Lake, Mich., will resume his old duties with the company.

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- Sodium Hyposulfite
- Sodium Sulfite (Anhydrous)
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- Trisodium Phosphate
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- Nitric Acid

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Appearance: Opalescent to clear
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In Wisconsin: General Chemical Wisconsin Corporation, Milwaukee, Wis.

In Canada: The Nichols Chemical Company, Limited • Montreal • Toronto • Vancouver

Thilmany Begins New Water Treatment Plant

Two-Unit Coagulation and Sedimentation System Expected To Be Completed This Fall — J. C. Kimberly and J. S. Sensenbrenner Retire As Directors—Consolidated Reports Improved Operations.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 30, 1945—The Permanent Construction Company, Milwaukee, Wis., has started form work for the coagulation and sedimentation plant of the Thilmany Pulp and Paper Company at Kaukauna, Wis. Labor and materials have been made available, and the plant should be finished early in the fall, if a satisfactory supply of labor can be maintained, according to the mill engineering staff.

Under the present system, water for the mill is taken directly from the Fox river, screened and chlorinated. The new plant will treat the water more completely, and will clarify more than 4,000,000 gallons daily. Servicing the lower mill, the plant was designed by the company's engineering staff. It consists of two main units, the first, a round tank, is 100 feet in diameter, and the second, a rectangular tank, is 40 by 100 feet.

Consolidated Reports Improved Operations

General improvement in the operations of Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., was reported at the annual stockholders' meeting Thursday, July 26, by George W. Mead, president. He gave a summary of business activities, and said that many plans for the future are in the making.

All officers were reelected at the board meeting following that of the stockholders, who had renamed the directors. Mr. Mead was reelected president; Walter L. Mead, Chicago, vice president; Stanton W. Mead, vice president and treasurer; Ralph R. Cole, secretary, and Theodore W. Brazeau, director. Thomas A. Duda was renamed as controller, and Earl A. Starks as assistant secretary.

Stanton Mead discussed pulpwood production and consumption; Walter Mead, the sales report and sales policies, and Mr. Duda presented an analysis of the financial statement.

Directors Retire From Kimberly-Clark

Resignations of two long-time directors of Kimberly-Clark Corporation, Neenah, Wis., were announced Wednesday, July 25, by Cola G. Parker, president. They are James C. Kimberly and John S. Sensenbrenner. Elected to fill the vacancies were W. H. Clifford and W. R. Kellett, the former also being elected vice-president in charge of finance.

J. F. Hunt was elected treasurer, replacing Mr. Clifford in that position, and will continue as secretary and comptroller. J. Leslie Sensenbrenner was elected as an additional assistant secretary-treasurer.

Three corporation executives were named to newly-created offices of assistant vice presidents. R. W. Lyons became general manager of the Woodlands division; C. F. Jenkins, sales manager; and R. M. Watt, third assistant vice president. W. M. Wright was appointed director of service operations.

The names of Kimberly and Sensenbrenner have been closely connected with the paper industry in the Fox River Valley for nearly three quarters of a century.

Mr. Kimberly began with the company in 1891 and for many years had active direction of the company's manufacturing operations. He is the son of one of the original four partners who founded the company in 1872 on a capitalization of $30,000, which now represents only sufficient capital for approximately three employes. His father was the first vice president of the company. During his 54 years of company affiliation, Mr. Kimberly has witnessed much of the growth which has made Kimberly-Clark one of the largest firms in the paper industry, employing directly upward of 6,000 persons.

Mr. Sensenbrenner's 38 years of Kimberly-Clark service dates from 1907 and continued actively up to August, 1942, at which time he left the office of vice president to go to Washington, D. C., for army service.

Both the new directors are veterans as Kimberly-Clark executives. Mr. Clifford joined the company in 1920, and Mr. Kellett began in 1917. He was named general superintendent early this year.

Strange Estate Valued at $310,000

The will of Hugh M. Strange, Neenah, late president of the John Strange Paper Company of that city, makes Mrs. Carolyn Strange, the widow, the sole beneficiary during her lifetime. After her death the estate is to be divided between their sons, Hugh M., Jr., who is serving in the army, and John G. Strange, Appleton, Wis.

The petition offering the will in probate at Oshkosh, Wis., estimated the value of the estate at $310,000, of which all but $10,000 represents personal property.

Mill to Start New Safety Contest

Employes at Kimberly-Clark Corporation's mill at Kimberly, Wis., will start a new safety contest on August 1. The contest will continue to January 1, 1946. Departments have been grouped into 10 units, including both salary and hourly-paid employes.

Each group working a full month without a lost-time on-duty accident, will receive a cash award. Each will forfeit part of its award for each accident. Any forfeited money will be transferred.

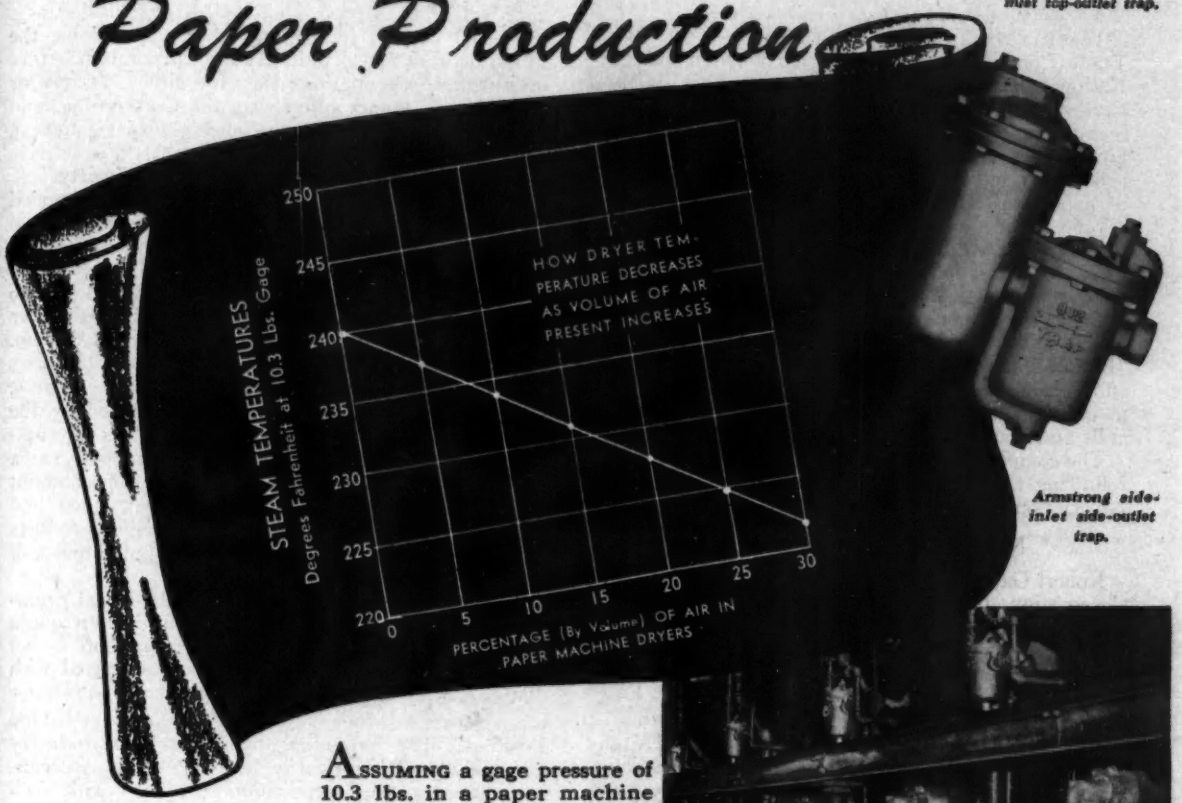
"Maize" Advances H. A. Kaufmann

J. B. Melick, general sales manager of the American Maize-Products Company, New York City, has announced the appointment of H. A. Kaufmann as manager of industrial service. Mr. Kaufmann has been associated with "Maize" for six years, and in addition to his new duties will continue as manager of sales research.

Timken Promotes Gilbert Soler

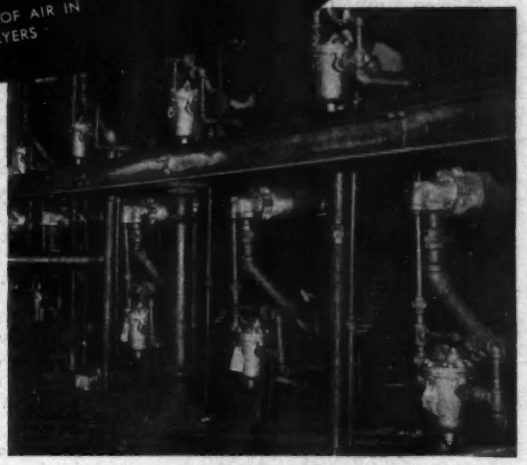
CANTON, Ohio, July 30, 1945—Gilbert Soler, superintendent of the Quality Control Departments at Steel & Tube Division of the Timken Roller Bearing Company, has been named assistant general superintendent of the division, company officials announced today.

. . . how air in dryers reduces *Paper Production*



Armstrong bottom-inlet top-outlet trap.

Armstrong side-inlet side-outlet trap.



ASSUMING a gage pressure of 10.3 lbs. in a paper machine dryer, the presence of 20% by volume of air will reduce the steam temperature to 228° F., which is *12.1° below true steam temperature.* Higher percentages of air reduce temperatures correspondingly. The effect on paper production of sub-normal dryer temperatures is obvious.

Accumulation of an excessive amount of air in a dryer is generally the result of inadequate drainage of condensate which permits the syphon pipe to become water sealed thereby closing it off to the passage of air.

Armstrong Inverted Bucket Steam Traps designed specially for paper mill service eliminate this difficulty and assure you maximum temperatures by:

1. Drainage of condensate as fast as it collects, thus permitting free passage of air from the dryer.
2. Automatic venting of *all* the air drawn from the drying cylinder.

For a comprehensive, educational and easy-to-read study of this subject write for a copy of "OBSERVATIONS ON DRYER DRAINAGE SYSTEMS" by Paul L. Ulrich.

CHECK YOUR DRYER TEMPERATURES! If below true steam temperature, your drainage system is inadequate. For complete details, write today.

HIGHLIGHTS
Armstrong Drainage

1. Drains condensate as fast as it accumulates.
2. High Air venting capacity.
3. No steam waste.
4. Low maintenance.
5. Maintains uniform temperatures, uniform drying.
6. Quickly responsive to load changes.
7. Permits operation of groups of dryers at different temperatures.
8. Reasonable first cost — an investment that pays high returns.

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818 Hoffman Street, Three Rivers, Mich.

ARMSTRONG *Inverted Bucket* STEAM TRAPS

FTC Files Against Paperboard Association

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 1, 1945—The Federal Trade Commission has issued a complaint charging National Paperboard Association, 80 East Jackson boulevard, Chicago, Ill., and its officers and member manufacturers with participating in an unlawful combination to eliminate competition in price, restrict production and monopolize the manufacture and sale of paperboard and paperboard products. The association members allegedly do 90% of the industry's business and are in position to control the manufacture, terms and conditions of sale of their products.

In support of their program for controlling the industry the respondents, the complaint alleges, formulated and put into effect what is known as the "Becker Plan," whereby members of the Association and non-member manufacturers subscribed to a fund to individually buy up or lease existing paperboard mills and machinery.

The complaint specifically names as respondents the following 12 manufacturers who are members of the Association:

Names Twelve Manufacturers

Robert Gair Company, Inc., New York City; Mead Corporation, Chillicothe, Ohio; International Paper Company, New York; Mac Sim Bar Paper Company, Otsego, Mich.; Hinde and Dauch Paper Company, Sandusky, Ohio; Morris Paper Mills, Chicago; Container Corporation of America, Chicago; The Eddy Paper Corporation, Chicago; Schmidt and Ault Paper Company, York, Pa.; United Paperboard Company, New York; Continental Paper Company, Ridgefield Park, N. J.; and Chesapeake Corporation of Virginia, West Point, Va.

All of the respondent manufacturers, except International Paper Company and Mac Sim Bar Paper Company, are subscribers to the Becker Plan.

Also named as respondents are Frederick G. Becker, Inc., 224 South Michigan avenue, Chicago, and its officers, Frederick G. Becker, president; Malcom K. Whyte, vice president, and H. S. Adler, secretary-treasurer. Becker also is executive manager of National Paperboard Association.

With respect to the so-called Becker Plan of mill buying and other practices engaged in by the respondents in support of their restraint-of-trade combination, the allegations of the complaint are in part:

Under a contract entered into with the Becker Corporation each subscribing manufacturer agrees to pay 75 cents for each ton of paperboard it manufactures, and larger payments for any paperboard produced in excess of the manufacturer's proportionate tonnage position in the industry. Ninety percent of each manufacturer's payments is held in trust by the Becker Corporation for the benefit of the manufacturer, subject to certain provisions of the contract. Ten percent goes to the Becker Corporation as compensation for its services.

The contract provides that the fund upon written request of the manufacturer, may be expended "for the acquisition by purchase or lease of now existing paperboard producing properties and/or machines acquired subsequent to the date hereof and/or for the payment of carrying charges required by the agreements covering such acquisitions. All acquisitions by the Manufacturer, payments for which are to be made from said fund shall be made with the approval of the Corporation and through its agency. To avoid conflict in making other acquisitions, the Manufacturer agrees to notify the Corporation before opening any negotiations therefor either directly or through any agency other than the Corporation, and shall not enter into any such contemplated negotiation, in event the Corporation notifies it that it is actively interested in an acquisition of the same property."

The Corporation agrees that for the five-year period specified it will investigate and report on paperboard producing properties; furnish to the manufacturer available data in connection therewith; negotiate for acquisitions which the manufacturer may desire to make; hold, invest and expend the funds, and render the statistical and advisory service incidental thereto.

The respondent manufacturers also report statistics governing the activities of their respective plants, which reports when combined and analyzed by the Association are distributed to its members as summaries showing, with reference to the industry as a whole, prices received and asked, type and amount of industry production, orders received, filled and unfilled by weeks, raw materials and finished products on hand, and relative position of each individual mill with reference to production.

The respondents have also agreed upon and promulgated through the Association a production quota system whereby the producing capacity and actual production of each individual mill as compared with that of the industry as a whole is calculated. Under this system each mill is given a "Historical or Rated Position." The individual members of the industry maintain this "Historical or Rated Position" by regulating their rate of production to accord with such "position."

Asserts Restrictive Practices

According to the complaint, the respondents' combination and the practices in furtherance thereof have the tendency and effect of stabilizing prices; have unduly restricted and eliminated competition in prices and otherwise; have restrained, limited and apportioned the production of paperboard and paperboard products; have a dangerous tendency to create in the respondents a monopoly of the manufacture, sale and distribution of their products; and have placed in the respondents the power to control and enhance prices.

The complaint alleges that the members of National Paperboard Association constitute a class so numerous and changing as to make it impracticable to specifically name each individual member as a respondent. The 12 members against whom the complaint is directed are named as respondents in their individual capacities, as members of the Association, and as representatives of those member manufacturers not specifically named therein.

The respondents are granted 20 days to answer the complaint.

Veterans on Kimberly-Clark Payroll

The Lakeview Mill, Neenah, Wis., of Kimberly-Clark Corporation now has 76 veterans of World War II on its payroll, five having been added recently. Forty of the total number were former permanent employes, 6 were temporary employes, and 30 were not previously employed by the corporation.

TENSION RIGHT...EFFICIENCY HIGH... MACHINES PRODUCING...ALWAYS

You always *know* belt tension is right on a Flat Leather Automatic Tension drive. The pivoted motor base regulates tension automatically — high when the load is heavy, low when the load is light. There is no gradual, undetected slackening of the belt until it wears out from heat due to slippage!

Efficiency remains high above or below rated capacity (and most drives *do* run at less than rated capacity most of the time). A flat leather belt on a pivoted motor base drive operates at close to maximum efficiency from 50 to 150% of rated capacity at rated tension. Other short-center drives lose efficiency rapidly at loads either lighter or heavier than rated.

Production continues, uninterrupted, because the F.L.A.T. drive is never stopped for base adjustment.

Ask your Graton & Knight distributor for a demonstration.

Dependable, trouble-free service on a Flat Leather Automatic Tension drive is provided by "Research" Leather Belting, manufactured by processes which make it ideal for drives operating at higher speeds, over short centers and small pulleys.

Its greater pliability means it can withstand the constant flexing. Its "built-in" pulley grip means less tension required to deliver full power without slip. No idlers are necessary.

A "Research" Leather Belt on a F.L.A.T. drive will outlive a rubber V-belt on a corresponding drive by better than 2 to 1. Write Graton & Knight Company, 337 Franklin St., Worcester 4, Mass., for new, free Belting Manual.

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Research Leather Belting

from Graton & Knight's line of leather belting—the most complete for all applications. Manufactured under one control from green hide to finished product. Branches and distributors everywhere. Look under "Graton & Knight" in "Belting" section of Classified Telephone Directory or THOMAS' REGISTER.

LABOR BACKS FOREST CONSERVATION

(Continued from page 7)

a significant increase in the export of pulpwood from $1,517,000 to $2,275,000. Meanwhile the papers here in the past week have reported the sailing from Montreal of three Dutch ships carrying a rush order of newsprint to Holland, the bulk of the paper being from plants in this province. This, it is stated, will be the first shipment of paper to reach Holland since its occupation by the Germans nearly five years ago.

4-H Clubs to Convene

The third provincial convention of the 4-H Clubs of Quebec will take place in Montreal on August 6 to 9 inclusive. The main object of these clubs, which are spreading rapidly throughout rural Quebec, is to inculcate in the younger generation the knowledge and love of forests, and they are doing a work in this direction comparable to that done in the United States by similar clubs for the promotion of farming knowledge. Recognized forestry experts will be invited guests at the convention.

Canada's Greatest Natural Resource

Describing wood as Canada's greatest natural resource, Neil B. Powter, sales promotion manager of Howard Smith Paper Mills, gave a talk entitled "Paper, the Life Blood of Business" at a Kiwanis Club meeting here. The talk was illustrated by a color motion picture film tracing the making of paper through all the process from the cutting down of the tree to the shipment of the finished product.

Big New Linerboard Plant

From its head office in the Sun Life Building here the Brompton Pulp and Paper Company has issued a statement announcing that operations at its Red Rock mill are expected to start this fall, and that the product will not be sulphate or "kraft" pulp, as originally planned, but kraft linerboard, or shipping case materials. This, it is explained, will expand to a considerable extent the margin of profit on the output over and above that available for pulp alone, with a daily mill capacity of some 250 tons, as it will carry the manufacturing process far beyond the early stage of sulphate pulp. The cost of the entire enterprise, which is in the Thunder Bay district on the north shore of Lake Superior, is estimated at approximately $8,500,000, including a townsite calling for $500,000 expenditure, pulpwood inventories and a working capital of some $2,500,000. The Brompton Company's operations now span a distance of over 1,000 miles from the parent mills at East Angus and Bromptonville in Quebec to the new Red Rock Division 60 miles east of Port Arthur, Ont.

Strike at Price Mills

Price Brothers and Company's sawmills at Rimouski and Matane have been strike-bound twice in a week, allegedly because a wage increase granted by the Regional War Labor Board did not cover all the workers. Labor officials said they had not authorized the walkout. It is reported that the board agreed to raise the wages of certain employees by four cents an hour. The increase, however, did not apply to the production workers who receive special bonuses. According to company information, the men, who struck on two previous occasions in protest against rulings of the board, have been given seven increases since 1940.

Sorg Will Build New Power Plant

MIDDLETOWN, Ohio, July 30, 1945—The Sorg Paper Company has recently received War Production Board approval covering an addition to its Power Plant to house a new boiler and accessory equipment. The power plant expansion will consist of a building extension to house a new 120,000 lb. per hour, 425 lb. pressure boiler and a new feed water treating system. The boiler will be fired with powdered coal furnished by two pulverizers supplying fuel to four burners. Automatic combustion control will be used. The feed water treating plant will be a two-stage system with hot process line and soda in the first stage, followed by a phosphate stage.

A new 250-ton coal handling and storage system will also be installed. This will consist of conventional storage silo with automatic delivery and weighing of coal to both new and old boilers.

The increase in production on all Sorg paper machines during the past several years has called for additional steam and power to such an extent that existing boilers were inadequate in capacity. The new unit and the present three 50,000-lb. units will not only provide adequate steam and power for maximum loads, but also reserve capacity that will make possible, at all times, proper maintenance of boiler and accessory equipment.

J. E. Sirrine and Company, Greenville, S. C., are consulting engineers, for the project, working with G. H. Suhs, chief power engineer for Sorg.

Great Lakes Improvements Under Way

TORONTO, Ont., July 28, 1945—Contemplated alterations and repairs for the Fort William plant of Great Lakes Paper Co., Ltd., are estimated to cost $150,000 and comprise modernization of the acid plant, sulphite screen room and wood-handling facilities. Work is now under way on a pulp storage building, which is to cost $60,000, in addition to which $165,000 is to be spent on equipment. The new equipment will include flakt pulp drive. There will also be a new building of structural steel construction, estimated to cost $70,000, to house the flakt machine. The present program of improvement is expected to reduce the cost of handling and delivery of the company's export pulp production.

National Paper to Enlarge Plant

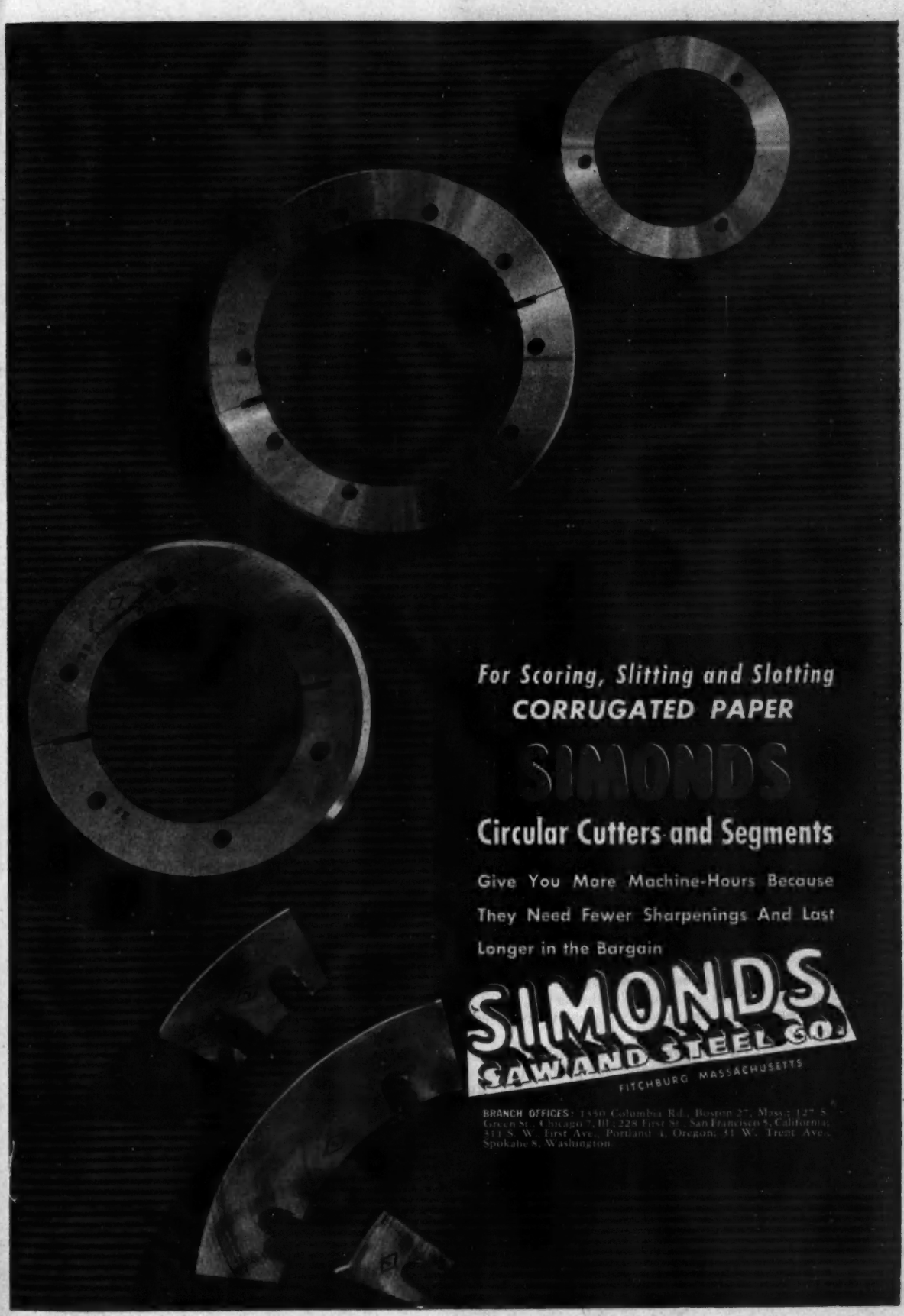
RANSOM, Pa., July 27, 1945—The National Paper Corporation will spend $400,000 at its paper mill. Approval has been given by the WPB to plans prepared by Johnson and Weirke of New York City, nationally known engineers specializing in paper mills. A large, new building will be constructed to increase the plant's facilities. The first job will be the erection of a boiler room.

Planned improvements to the Ransom plant will make it one of the most modern in the country. The principal item manufactured at this will be toilet paper.

Sorg Pulp Co. Make Improvements

[FROM OUR REGULAR CORRESPONDENT]

VANCOUVER, B. C., July 30, 1945—Sorg Pulp Company Limited, 675 West Hastings St., is now erecting six duplex residences and a laundry power house building at the plant in Port Mellon, B. C. at a cost of approximately $65,000.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Give You More Machine-Hours Because
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FINANCIAL NEWS

New York Stock Exchange

High, Low and Last for Week Ending July 28, 1945

STOCKS

	High	Low	Last
A. P. W.	6	5⅝	6
Armstrong Cork Co.	43¾	42¾	42⅝
Celotex Corp.	15⅞	15½	15⅝
Celotex Corp., pf.	20⅞	20	20¼
Certain-Teed Products Corp.	10⅝	9⅜	10½
Certain-Teed Products Corp., pf.	...	...	...
Champion Paper & Fibre Co.	32½	31⅛	31¼
Champion Paper & Fibre Co., pf.	110½	110⅛	110¼
Congoleum Nairn Co.	28½	28	28¼
Container Corp. of America	29⅛	27⅜	27⅜
Continental-Diamond Fibre Co.	12⅝	12	12⅛
Crown-Zellerbach Co.	23	21¾	22
Crown-Zellerbach Co., pf.	104¼	103⅜	103¾
Dixie Cup Co.	26½	26	26
Dixie Cup Co.—A	49	48	49
Flintkote Co.	28⅜	27⅜	28¼
Flintkote Co., pf.	108	107¾	108
Robert Gair	6¼	5⅞	6
Robert Gair, pf.	17⅞	17½	17⅝
International Paper Co.	25¾	24⅛	24⅜
International Paper Co., pf.	97½	95¼	95⅜
Johns-Manville Corp.	118	113	113½
Johns-Manville Corp., pf.	...	...	...
Kimberly-Clark Corp.	46¾	46	46¼
Mac Andrews & Forbes	33	32	32
Mac Andrews & Forbes, pf.	...	...	...
Masonite Corp.	42¾	41½	42
Mead Corp.	15	14⅝	15
Mead Corp., pf. A—6%	105	104	104
Mead Corp., pf. B—5½%	103½	103	103
National Container Corp.	15⅝	14¼	14½
Paraffine Companies, Inc.	65	64¼	64¼
Paraffine Companies, Inc., pf.	110	110	110
Rayonier, Inc.	19⅝	19	19⅛
Rayonier, Inc., pf.	36	35¾	35¾
Ruberoid Co.	36¾	35⅞	36
Scott Paper Co.	52	50¼	50¼
Scott Paper Co., pf.	111¾	111½	111¾
Sutherland Paper Co.	...	...	...
Union Bag & Paper Corp.	16⅞	16½	16¾
United Paperboard Co.	7⅝	7⅛	7⅛
U. S. Gypsum Co.	89½	88½	88½
U. S. Gypsum Co., pf.	190½	190½	190½
West Virginia Pulp & Paper Co.	28⅝	28	28
West Virginia Pulp & Paper Co., pf.	112	112	112

BONDS

Abitibi Pulp & Paper Co. 5s '53	100¾	100¾	100¾
Celotex Corp. 3¾s '55	...	...	...
Certain-Teed Products Corp. 5½s '48	...	...	...
Champion Paper & Fibre Co. 4¾s '50	...	...	...
International Paper Co. 6s '55	108½	108½	108½
International Paper Co. 5s '47	104⅜	104⅜	104⅜
Mead Corp. 3½s '53	...	...	...

New York Curb Exchange

High, Low and Last for Week Ending July 28, 1945

STOCKS

	High	Low	Last
Great Northern Paper Co.	38¼	38¼	38¼
Hummel-Ross Fibre Corp.	9	8½	8½
St. Regis Paper Co.	7	6⅞	6⅞
St. Regis Paper Co., pf.	...	...	...
Taggart Corp.	5⅞	5⅞	5⅞

BONDS

American Writing Paper Co. 6s '61	101	100¾	100¾

Kimberly-Clark Nets $3.29

Kimberly-Clark Corporation's net income was $2,474,710.07 for the 12 months ending June 30, before provision for preferred stock dividends of $499,975.33, according to the income statement released last week by the corporation.

The net profit on common stock for the 12-month period was $1,974,734; while the net profit on common stock for the 6-month period ending June 30 was $1,168,038.60. During the 6-month period the net income before provision for preferred stock dividends was $1,398,492.60, while provision for dividends on the preferred stock totalled $230,454 for the period.

Profits per share for the 12-month period based on 599,760 shares, was $3.29, down slightly from a comparable period in 1944, when the profit per share was $3.51; but the profit per share for the 6-month period ending June 30 was $1.95 as compared with $1.75 for the comparable period in 1944.

Gair Net Off in Quarter, Up in Half

Robert Gair Company, Inc. and Subsidiaries report for the quarter ended June 30, 1945, combined net profit of $187,285.41 after provision of $752,000 for U. S. Federal Income and Excess Profits Taxes, and a non-recurring deduction of $107,000 premium on retirement of the 40-Year 6% Income Notes, equal after Preferred dividends to 8.3c par share on 1,231,517 shares of Common Stock.

For the second quarter of 1944 the combined net profit was $196,728.82 after provision of $759,000 for U. S. Federal Income and Excess Profits Taxes, equal after Preferred dividends to 12.4c per share on 1,134,176 shares of Common Stock.

The net profit for the first six months of 1945 after deducting $107,000 for premium on the retirement of the 40-Year 6% Income Notes and $1,282,000 for U. S. Federal Income and Excess Profits Taxes amounted to $393,115.67, equal after Preferred dividends to 20.5c per share on 1,231,517 shares of Common Stock. For the same period in 1944 the net profit was $330,319.67 after deducting $1,236,000 for U. S. Federal Income and Excess Profits Taxes, equal after Preferred dividends to 19.3c per share on 1,134,176 shares of Common Stock.

Union Bag Profits Rise

The Union Bag and Paper Corporation reports net income in the second quarter was $508,663, or 40 cents a share, compared with $372,118, or 29 cents a share, in the second quarter of last year and with $538,637, or 42 cents a share, in the first quarter of 1945. Net income in the six months period to June 30, 1945 totaled $1,047,300, or 82 cents a share, compared with $795,354, or 63 cents a share, in the comparable period a year ago.

Second quarter sales of $10,549,230 showed an increase of 18% over the $8,937,646 sales in the second quarter of last year and a decrease of 4% from the $11,017,098 sales in the first quarter ended March 31, 1945. Six months sales of $21,566,328 to June 30, 1945 reflect an increase of 17% over the 18,423,576 sales in the comparable period of 1944.

Mando Net $529,296 for Half Year

MINNEAPOLIS, July 30, 1945—Donald D. Davis, president of Minnesota and Ontario Paper Company, announces that the consolidated net income of that Company, after provision for income and excess profits taxes, was $234,857 for the quarter ended June 30, 1945, and $529,296 for the six months ended June 30, 1945, compared to $607,741 for the six month's period ended June 30, 1944.

A non-recurring item of $116,000, the balance of the unamortized 5% income bond expense, was charged off in the June 1945 debt refunding.

Davis further stated that the net income of the National Pole & Treating Co., after provision for income and excess profits taxes, for the six months ended June 30, 1945, was $62,098, compared with $27,560 for the same period in 1944.

Container Corp. Profits Off

Consolidated earnings of the Container Corporation of America for the six months ended June 30, after federal taxes amounted to $1,202,134, or $1.29 per share, compared with earnings of $1,595,143 for the same period in 1944, when per share earnings were $1.53.

Water-borne polyvinyl resins provide safer, simpler coating methods

GEON latex is a film-forming plastic material used to apply thin coatings to fabric, paper, fibre, thread, wire or any other material to which coatings can be applied by conventional methods. It is a true latex—a water dispersion containing a solid content of approximately 50% vinyl resin. Especially suitable for use in continuous processes, GEON latex is an easy-flowing, milk-like liquid of remarkably high stability. It is *not* rubber and contains *no* rubber.

When suitably formulated GEON latex can be used with standard coating equipment. Variations in viscosity can be obtained to make GEON latex suitable for use with such machines as knife spreaders, air knife coaters, roller applicators and continuous dip tanks.

In addition to the natural economy and simplicity of processing, GEON latex, being a water system, offers safety advantages not to be found in solvent systems. The dangers of toxicity and explosion are eliminated. Dangerous, expensive and cumbersome solvent recovery systems are unnecessary because no solvent is used.

GEON latex, like all latices, has its limitations. It is not a "miracle material", that will do away with other coating methods. Yet already its use in military and related applications has proved that entire new fields in coatings will be opened up by this new material, the development of which was a true scientific achievement. For more information, write Department MM-8, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.

Geon
Polyvinyl Materials

B. F. Goodrich Chemical Company

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Obituary

Joseph Lea Fearing

Joseph Lea Fearing, vice-president of the International Paper Company and a leading figure in the paper industry for half a century, died July 28 in St. Luke's Hospital after a long illness. He was 70 years old.

Born in Philadelphia, Mr. Fearing, on his paternal side, traced his lineage back to John Fearing, who landed at Hingham, Mass., in 1635, and, on his maternal side, was descended from John Lea of Wiltshire, England, who came to this country in 1699 with William Penn.

Mr. Fearing studied at the Cutler School and St. Paul's School, Concord, N. H. He was graduated from Columbia University School of Mines in 1895 and attended the Columbia University Law School for the next two years.

Instead of taking up the practice of law, Mr. Fearing entered the paper industry, to which he devoted

THE LATE JOSEPH LEA FEARING

his entire business career. In 1897 he became a salesman for the firm of W. H. Parsons & Co. Two years later he was appointed sales agent at Cincinnati for the International Paper Company, and the next year was promoted to the post of the company's western sales agent at Chicago. In 1923 he was named general sales agent for the company in New York and later that year became a vice-president.

From 1933 to 1936 Mr. Fearing served as president and a director of the International Paper Sales Company, a subsidiary of the International Paper Company in charge of newsprint sales in certain areas. He also was a director of American Paper Exports, Inc.

A former president of the Salesman's Association of the Paper Industry, Mr. Fearing was one of the founders of the Import Committee, serving as a member from 1924 to 1932. He had been president since 1935 of the Quarter Century Society, Inc., a benevolent organization made up of members of the International Paper Company who had served twenty-five years or more.

While Western sales agent for his company in Chicago, Mr. Fearing was for two years chairman of the finance committee of the City Council and a member of the Board of Local Improvements of Highland Park, Ill. He was the author of several pamphlets dealing with problems of the paper industry, newsprint in particular.

He was a member of the Masons, Alpha Delta Phi Fraternity, the Columbia University Club, the Union League Club of New York and the Greenwich Country Club.

He married twice. His first wife died in 1914. He leaves a widow, the former Katherine Lay McCauley of Highland Park; three sons, Joseph Lea Fearing Jr. and Nathan Munroe Fearing, both of Chicago, and Lamar Munroe Fearing of Hartsdale, N. Y.; three daughters, Mrs. Carol Lyttle of Scarsdale, Mrs. Frank E. Lalley of Poundridge, N. Y., and Mrs. Henry R. Walcott, Jr., and eleven grandchildren.

Harry J. Farren

Harry Joseph Farren, 65, well known as a paper mill superintendent since 1907, died July 21 at his home in Baldwinsville, Mass. Mr. Farren was employed in various mills including the A. P. W. Paper Company, Albany, N. Y., Berst-Forster Dixfield, Plattsburgh, N. Y., and the Metalite Company, Amesbury, Mass.

Surviving are his wife, Mabel Keener Farren, a daughter Helen, a brother, P. J. Farren of Allentown, Pa. and two nieces.

Funeral services were conducted by the Rev. J. P. Prigmore at Wincherndon, Mass. and burial was in Macpelah Cemetery at Lititz, Pa.

Edward Victor Donaldson

SARNIA, Ont., July 30, 1945—Edward Victor Donaldson of Pelham Manor, N. Y., died in a hospital here today after having been stricken ill in his summer home yesterday. Mr. Donaldson, who was 53, resigned as president of the Robert Gair Company, Inc. in 1939.

Born in Brandon, Man., Mr. Donaldson in 1922 became sales manager of the Rudd Paper Box Company, Ltd. He was appointed president and general manager of that firm in 1927, and president of Firstbrook Boxes, Ltd., the next year.

In 1930 he was made vice president and general manager of the Gair firm, and the next year was elected president.

Max Cline

Max Cline, chemist with the Bureau of Tests, International Paper Company, Glens Falls, N. Y., died on Thursday, July 26, 1945. Mr. Cline was born on March 17, 1882, graduated from the Massachusetts Institute of Technology in 1905 and has been with the International Paper Company for the past forty years. He was 63 years of age and was a charter member of the Technical Association of the Pulp and Paper Industry.

Duane Forrest Phelps

Duane Forrest Phelps, 63, of 441 Mystic street, Arlington, Mass., for 15 years treasurer of Shawprint, Inc., manufacturer of setup paper boxes, Lowell, Mass., and former president of the New England Baking Co., died July 15 at his home. Funeral services were held July 18 at the Church of the Epiphany (Episcopal), Winchester, Mass. Burial was in Syracuse, N. Y.

Camp Manufacturing Name Resumed

FRANKLIN, Va., July 31, 1945—The Chesapeake-Camp Corporation has announced a change in the company name to Camp Manufacturing Company, Inc., effective on July 16. There will be no change in the corporate structure nor in the officers of the present Corporation.

Camp Manufacturing Company, incorporated under the laws of the Commonwealth of Virginia on November 2, 1887, by Paul D. Camp, James L. Camp, Robert J. Camp and W. N. Camp, was merged, October 30, 1944 into and with Chesapeake-Camp Corporation. Camp Manufacturing Company had been engaged in the growth and manufacture of timber products and during these years had acquired extensive holdings of timber lands and standing timber.

The original charter of the company permitted the company to manufacture lumber in all of its branches and it has conducted a continuous chain of lumber manufacturing operations from that date to the present time. Its original saw mill was and still is operating here, and it has operated large saw mills, planing mills, wooden box mills, etc. during the intervening years from its incorporation in 1887 to the present time at Arringdale, Va., Butterworth, Va., Wilmington, N. C., Wallace, N. C., Marion, S. C., and St. Stephens, S. C.

The Chesapeake-Camp Corporation pulp and paper mill operating company was organized late in 1936 and the mill was built and operation started early in 1938. With the Camp Manufacturing Company holding a large portion of the land and timber acreage behind this new pulp and paper mill development and holding a substantial majority of the stock of the paper mill, the new pulp and paper mill had large reserves in raw material available to its mill.

The two companies continued to operate as separate corporations until the fall of 1944. Then, at a meeting of the stockholders of both the Camp Manufacturing Company and the Chesapeake-Camp Corporation the stockholders of both companies voted to adopt an agreement through which the Camp Manufacturing Company was merged into and with the Chesapeake-Camp Corporation.

This merger is still in effect: the name of the parent company has been adopted for it by the present action. The former officers and directors of Chesapeake-Camp Corporation will carry on as officers of Camp Manufacturing Company, Inc. Among them are four sons of the original incorporators: J. L. Camp, Jr., president, son of James L. Camp; Hugh D. Camp, vice-president, son of James L. Camp; W. M. Camp, vice-president, son of James L. Camp; and J. M. Camp, vice-president, son of Paul D. Camp.

Labor Board Gets West Virginia Case

Interruption to production at three mills of the West Virginia Pulp and Paper Co. was caused on Monday of this week by walkouts of the employes at Luke, Md., Covington, Va., and Williamsburg, Pa. during the course of negotiations over a new labor contract. The whole matter has been referred to the War Labor Board and that authority has been asked to notify the men to return to work pending conciliation and arbitration.

Federal Consents to Injunction

NEWARK, N. J., July 24, 1945—Federal Paper Board Co., Inc., 24 River Road, Bogota, N. J., has consented to a final injunction entered today by Federal Judge Thos. F. Meany from violating OPA price regulations. The complaint charging over-ceiling sales was filed by District OPA Enforcement Attorney Raymond J. Otis, who announced that the company had also settled a triple damage claim by paying $3,409.56 into the U. S. Treasury.

The consent injunction entered against the Federal Paper Board Company, Inc., according to J. R. Kennedy, president of the company, is the result of alleged technical violation of OPA regulations. OPA officials have recognized that there was no intent to violate such regulations, he added.

The situation arose when the Federal Paper Board Company, upon the urgent request of certain large users of containerboard, and with the approval of the War Production Board, converted its Tulpehocken mill in Reading, Pa., which previously produced abrasive paper and had not operated for many years, to the manufacture of .016 Jute Liner and .009 Corrugated Medium.

Under normal conditions the management would not have opened the Tulpehocken mill because of the large capital outlay involved and the fact that it would be a marginal producer. In order, however, to partially satisfy the increased demand the company arranged for the opening of the mill, which necessitated an outlay of many thousands of dollars. The mill was brought into production under the most difficult circumstances because of the serious shortage of labor and material.

The OPA alleged that a certain tonnage of .016 Liner Board produced at the Tulpehocken mill did not meet certain established tests and that consequently the company was in technical violation of OPA regulations.

Federal Paper Board Company, Inc. has at all times adhered strictly to the policy of co-operating fully with the various governmental departments and agencies and all governmental rules and regulations. If, in fact, there was a technical violation it involved only an insignificant tonnage, and was due not to any intent to evade the regulations but rather to circumstances that existed at the start of operations and that were beyond the control of the company.

Shartle & Dilts, Fleck, Exchange Lines

MIDDLETOWN, Ohio, July 30, 1945—A practical working arrangement between Shartle Brothers, of this city, Dilts Machine Works, of Fulton, N. Y., and Alexander Fleck, Limited, of Ottawa, Ont., in order to broaden the engineering approach to mill problems on both sides of the border, has been consummated. Centrifugal pumping and agi-flo agitation excepted, Fleck will handle the entire Shartle and Dilts line in the Dominion while Shartle & Dilts will promote Fleck products in the States. As of the moment, the Black-Clawson line is not affected.

The association of Fleck, Shartle, and Dilts is expected to make a valuable contribution to mill progress in the years immediately ahead when a crying need for more modern replacement equipment and vastly improved paper-making methods is generally anticipated.

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In the complete selection of Appleton Super-Calender Rolls you can find the one best suited for your papers. The wide range of fillings, many developed to meet special manufacturing requirements, permits the choice of the right roll surface to produce the finest finishing results on any super-calender or embossing application.
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to stop pitch troubles ...before they start

Add MERTANOL® 7L at the beater...

Two to six pounds of Mertanol 7L per ton of paper, added to the beater, is serving as adequate insurance against the hours of shutdowns which pitch can cause.

Mertanol 7L, a neutral water solution of an organic condensation product, apparently controls pitch in two ways:

1. By helping to keep the pitch dispersed, and —
2. By absorbing the pitch physically, much as do the fillers which are sometimes used for pitch control.

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Add MONSANTO SODIUM ALUMINATE to the paper stock...

Four to eight pounds of Monsanto Sodium Aluminate per ton of paper, added to the paper stock before the formation of the sheet, helps to prevent sticking to the rolls and driers. This trouble often occurs when alum alone is used in sizing medium or high pH papers because the amount of alum used to maintain pH level is insufficient to prevent sticking. Sodium Aluminate (an alkaline source of alumina), used in combination with alum, will prevent the trouble and will maintain the required pH.

HOW TO GET THEM... If you would like to try these simple methods of controlling pitch before it clogs your machines and upsets your production schedules, write, wire or phone: MONSANTO CHEMICAL COMPANY, Merrimac Division, Everett Station, Boston 49, Mass.

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SERVING INDUSTRY...WHICH SERVES MANKIND

HISTORICAL HIGHLIGHTS OF PAPERMAKING NO. 16

Paper kept their secret

During the thirteenth, fourteenth and fifteenth centuries, a strong band of pre-reformation heretics spread across northern Spain, through the southern provinces of France to Lombardy and Tuscany. Known as Albigenses, Waldenses and Cathari, depending upon their location, these sects had their strongholds in papermaking districts.

They communicated with each other by means of symbolic watermarks. So well did the paper hold their secret, that these mystical marks have never been deciphered, even to this day.

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Deming Records Progress

A unique booklet that departs from the traditional format of the "institutional" type of story was published recently by The Deming Company, pump manufacturers of Salem, Ohio. Title of the booklet—"Deming Pumps Everywhere"—is visualized on the outside covers by drawings of numerous places where the company's pumps and water systems are used.

Inside covers show photographs of a diversity of Deming pumps. A brief introduction is followed by two page spreads, each devoted pictorially and with related descriptions to the various important fields where Deming pumps and water systems are installed.

A chronological history of The Deming Company since its founding in 1880 is illustrated with photographs showing the early factory and the greatly enlarged factories of today.

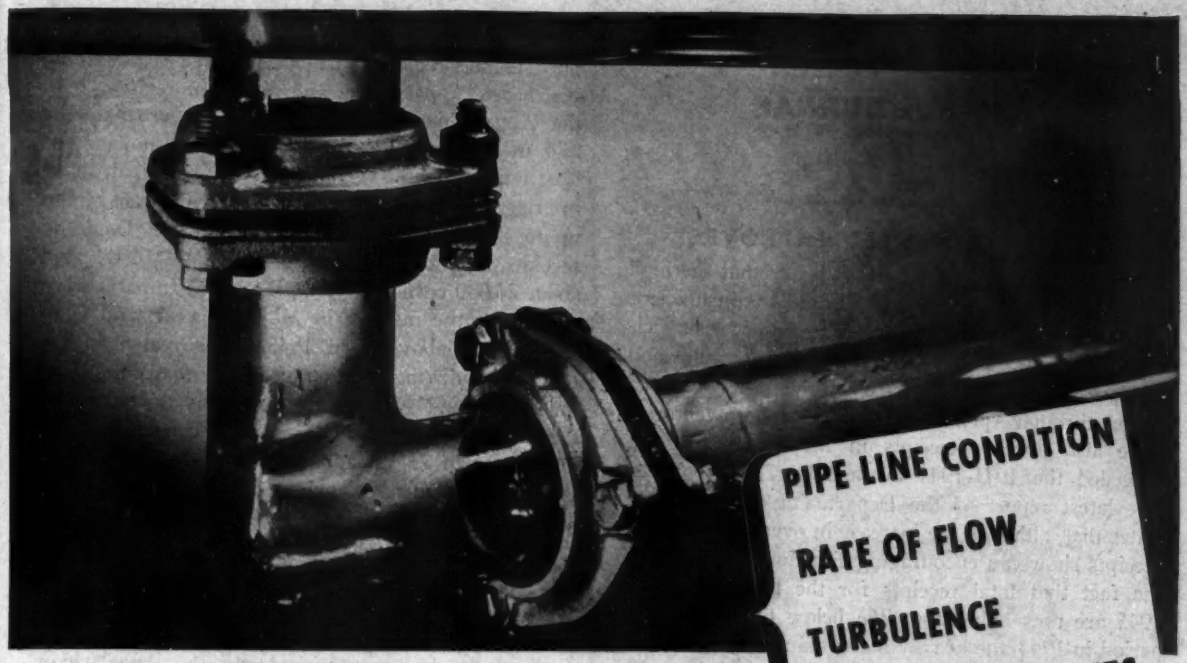
Typical views of plant departments are followed by photographs of the founders and group photographs of present officers, directors, sales and advertising staffs, department heads, and factory foremen. A list of typical owners of Deming Pumps and Water Systems reads like a "blue book" of American industry.

The entire booklet gives the reader a friendly acquaintanceship with pioneer pump manufacturers who have made steady progress for 65 years by building high quality products and maintaining a policy of cordial relationships with their jobbers, distributors, dealers and customers.

Taylor Promotes Four

ROCHESTER, N. Y., July 30, 1945—Lewis B. Swift, president of Taylor Instrument Companies, has just announced four important changes in the personnel of the sales organization to take effect immediately. Raymond E. Olson has been made general sales manager to head up all of the various sales activities.

Functioning under Mr. Olson will be Frank S. Ward, new industrial sales manager. Assuming the duties of Mr. Olson as Sales Engineering Manager will be Ralph E. Clarridge, who came with the company in 1930 directly from Ohio State University where he received the degrees of Bachelor of Engineering Physics and Master of Science. Assuming additional duties as commercial sales manager is W. Maben Griffith, whose department has charge of the sale of such well known consumer items as household thermometers, barometers, compasses and medical instruments.



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WHEN you use PYREX brand Glass Pipe you need never wonder what is happening inside your pipe lines. Every inch of this transparent pipe is open to inspection at all times. You can see the condition of the pipe line and its contents at every processing stage.

The following qualities are the reasons why PYREX Pipe has been found so valuable and thoroughly practical in so many industrial applications:

VISIBILITY PLUS

Product Purity—PYREX Pipe is resistant to all acids (except HF) and moderate alkalis. It helps to maintain product purity because there is no heavy metal pick-up.

Corrosion Resistance—PYREX Pipe has given trouble-free service for many years under the toughest corrosion conditions. It reduces replacements due to corrosion to a minimum.

Temperatures—Operating temperatures as high as 250°F. and, under certain conditions, as high as 400°F. are permissible. Resistance to sudden temperature changes means that even a cool pipe line can be cleaned by flushing with hot water or steam.

Ease of Installation—Your own men can install PYREX Pipe. No special tools or training are required. Pipe, fittings and hardware are delivered ready for assembly.

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Sizes and Fittings—PYREX brand Glass Pipe is now available in 1″, 1½″, 2″, 3″ and 4″ inside diameters. A complete line of PYREX fittings includes ells, tees, return bends, laterals and reducers. Adaptor connections for joining PYREX Pipe to all types of other standard fittings are available.

For more complete details and assistance in adapting this remarkable glass pipe to the solution of your liquid conveying problems, write to Industrial Sales Dept. PT8.

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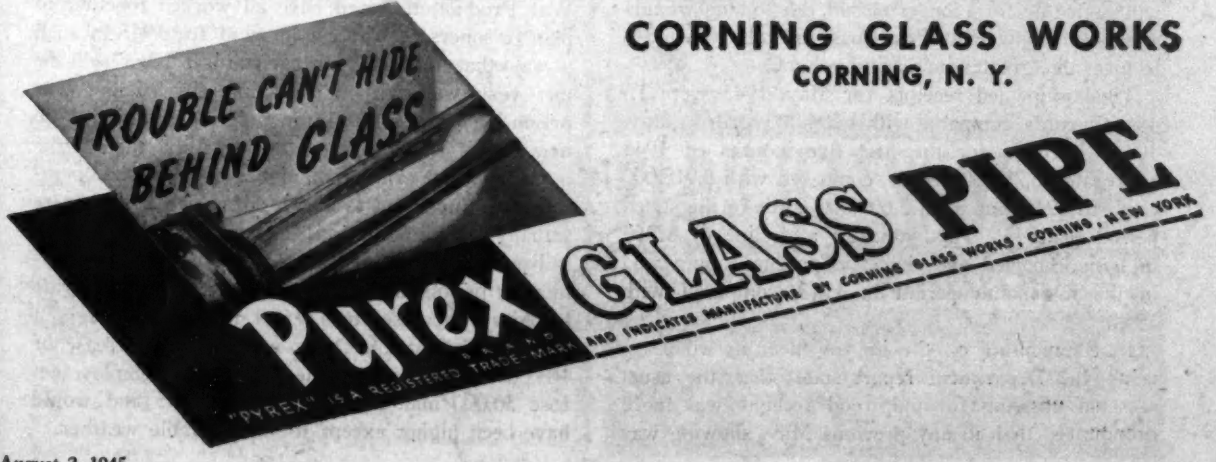
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"PYREX" IS A REGISTERED TRADE-MARK
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PAPER
TRADE JOURNAL
Title Reg. U. S. Pat. Off.
W. L. Cook, Editor

PULPWOOD SUPPLY IMPROVES

Pulpwood requirements are so heavy that the high cordage received at domestic pulp mills is insufficient to provide the tonnage of paper to satisfy rising civilian demands. The charted trend of total pulpwood receipts continued downward in the latter part of March through April of this year and total inventories were also lower. Receipts in May improved and exceeded the 1941-1944 average by 221,000 cords. The latest report of the Department of Commerce states that, although the increase in over-all pulpwood receipts shows an encouraging situation, especially in the fact that total receipts for the five months of 1945 are now only about 2% below the five month period in 1944, the heavily increased military requirements will still necessitate more pulpwood than is now being produced and will further make indispensable the need of keeping receipts at a high and sustained level for the remainder of this year. The increase in market pulpwood above the minimum of 1,250,000 cords agreed upon for 1945 shipment, has been set at 550,000 cords, bringing the 1945 expected shipments up to 1,800,000 cords. This "bonus" pulpwood will be of immeasurable aid in meeting the long-fibered pulpwood deficiencies of the Lake States and Northeast regions.

Another encouraging indication that should be of material assistance in marketing more pulpwood, is the report that the planned acceleration of civilian truck and tire production in the third and fourth quarters of this year is expected to ease truck transport problems for the pulpwood industry, although the industry will still have to contend with a diminishing supply of freight cars and a tight labor market. The improvement in the truck outlook is not expected to compensate for the freight car shortage, as cars will be tied up for a longer period, due to longer hauls and lack of sufficient West Coast unloading facilities to meet this greater increasing volume.

Total pulpwood receipts for May, 1945 were 1,461,000 cords, compared with 1,294,000 cords in May, 1944. Receipts for the first five months of 1945 aggregated 6,793,000 cords, compared with 6,918,000 cords in 1944, and with 5,691,000 cords in the stated period in 1943. This indicates a decline of 1.8% in both imported and domestic produced pulpwood in the five-month period in 1945, compared with 1944.

In commenting on the improvement in wood receipts the Department report states that, the usual seasonal upswing for pulpwood receipts was more pronounced than in any previous May, showing war recorded data. This market increase was not confined to one region alone but to three regions: the Northeast, Appalachian, and Southern regions, with the Appalachian region nominally lower than the high of 1944, and the Pacific Northwest showing the least improvement. Weather was the principal factor in bringing pulpwood receipts in the Northeast region up to their highest May in four years. Domestic receipts were up 53,000 cords over May, 1944, and about 26,000 cords above April, 1945. Imports were over twice the number in May last year, and were 38,000 cords above April, 1945. Improvement in imports was a direct reflection of the dry road conditions in Canada and New Brunswick, plus the fact that the railroad car situation has eased considerably by the release of 75 Canadian cars per day, permitting additional shipment of pulpwood into the Northeast area.

The report still indicates that, notwithstanding the improved situation in the Northeast, mills in that area are still in need of maximum possible production in spruce and fir because the inventory situation continues to be most critical. In the Appalachian region the coastal area continues to show good results, while the highland area shows a continual falling off. The latter area condition makes the production still precarious and necessitates a heavily increased volume in pine, chestnut and other hardwoods. May receipts, though lower than May of last year, were substantially above 1941, 1942, and 1943, and well above the 1941-1944 total average, both as to domestic and imported wood. An all time high for May pulpwood receipts was reached in the Southern region as a result of unusually good weather and extensive use of war prisoners. With prisoners of war generally meeting their daily task rate of production pulpwood receipts are expected to continue to increase in the next few months.

To encourage the peeling of pulpwood, ceiling prices for poplar were increased an equivalent of $1 a cord in Minnesota, Michigan and Wisconsin on June 14, 1945. The War Department, War Food Administration, War Manpower Commission and the War Production Board have all worked together to plan prisoners of war employment for 1945 in such a way that requests for agricultural labor will be met very well without affecting any of the war prisoners being utilized for pulpwood cutting. No new camps were activated during May, though the number of war prisoners assigned to pulpwood operations was increased to 23,000, of which 20,500 were actually cutting pulpwood. The remaining 2,500 were utilized for prisoner camp maintenance. Employment of prisoners of war in forestry work for private employers increased to 429,000 man-days throughout the United States in May, which is an increase of 105,000 man-days. In the South such employment rose 50,000 man-days over April, 1945 and would have been higher except for unfavorable weather.

Equipment Committee to Discuss Prices

WASHINGTON, D. C., August 1, 1945—Appointment of a ten-man industry advisory committee to represent manufacturers of pulp, paper and paper products machinery and equipment in consultations on pricing matters with the Office of Price Administration was announced by the price agency today. The committee will hold an organization meeting in Washington, D. C., on Wednesday, August 8, 1945, at which cost and price problems will be discussed with OPA officials. Present maximum prices for most pulp, paper and paper products equipment are those in effect in the industry on October 1, 1941.

Members of advisory committee are: H. C. Moore, Beloit Iron Works, Beloit, Wis.; J. E. Waterhouse, Montague Machine Co., Turners Falls, Mass.; L. J. List, Samuel M. Langston Co., Camden, N. J.; H. D. Wells, American Paper Machinery and Engineering Works, Inc., Glens Falls, N. Y.; Walter Abbe, Jr., Smith and Winchester Mfg. Co., South Windham, Conn.; Homer D. Martindale, Shartle Bros. Machine Co.; Middletown, Ohio; Edgar A. Smithe, F. L. Smithe Machine Co., Inc., New York City; Samuel J. Campbell, Hudson Sharpe Machinery Co., Green Bay, Wis.; J. Henry Richmond, Potdevin Machine Co., Brooklyn, N. Y.; Lester M. Start, Rice Barton Corp., Worcester, Mass.

Mary and Chadeyron Visit New York

Maurice Mary and Louis Chadeyron, as members of a French mission to the United States and Canada, visited the offices of the PAPER TRADE JOURNAL last week. They expect to have opportunity to pay short visits to paper making centers in the east and the midwest. Mary is a director of the Edouard Hery organization, consulting engineers, and publishers of the French magazine, *Le Papier*. Chadeyron is manager of laboratories for Cellulose du Pin, a Kraft pulp and paper mill at Facture, in the Department of Gironde, near Bordeaux in southwestern France. Both declare that any prospect of early resumption of paper production in France depends on the French fuel situation.

Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

Current Weeks—1945		Corresponding Weeks—1944	
June 16	91.5	June 17	91.5
June 23	90.4	June 24	90.8
June 30	87.5	July 1	86.2
July 7	47.9	July 8	50.9
July 14 (Revised)	88.5	July 15	87.7
July 21	87.2	July 22	91.2

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year Avg.
1944	88.7	88.5	88.1	87.6	88.7	89.8	80.3	90.6	88.2	92.5	90.6	82.4	88.1
1945	86.7	89.4	90.2	88.1	89.8	91.2							

COMPARATIVE YEARLY SUMMARIES

	1938	1939	1940	1941	1942	1943	1944	1945
Year to Date	67.6	78.6	86.9	93.4	95.7	87.7	87.3	87.5
Year Average	71.5	83.4	85.6	97.4	90.4	87.8	88.1	

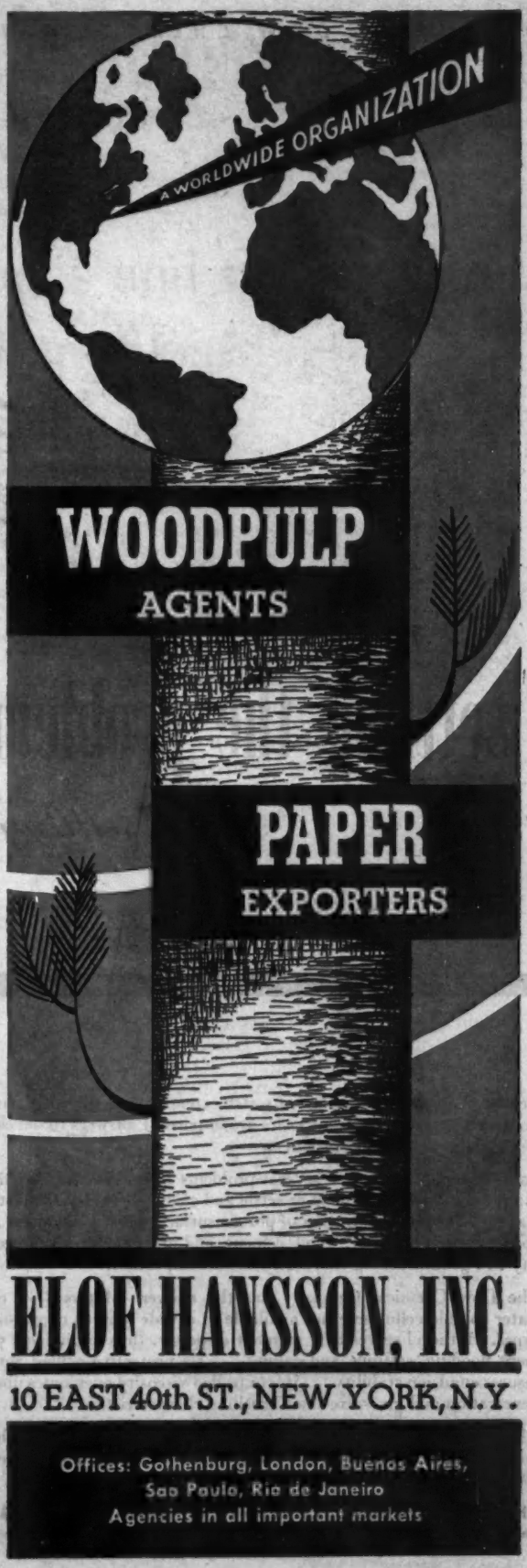
*Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

PAPERBOARD OPERATING RATIOS†

Current Weeks—1945		Corresponding Weeks—1944	
June 16	96	June 17	95
June 23	96	June 24	96
June 30	96	July 1	95
July 7	62	July 8	60
July 14	90	July 15	91
July 21	96	July 22	94

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year Avg.
1944	90	96	95	96	96	96	85	96	92	95	95	85	93
1945	91	95	97	97	96	96							

†Per cents of operation based on "Inch-Hours" reported to the National Paperboard Assn.



ONE OF 27 DOW CHEMICALS USED BY THE PAPER INDUSTRY

settling the problem

of settling pigments

Behind the well-known story of water extendable paints which have become so popular in recent years are important answers to development problems in many products.

Paint manufacturers face several problems in making water paints . . . pigments must not flood or settle and cake . . . emulsions must be stable . . . undue penetration of porous surfaces must be avoided . . . good adhesion to paper, wood, cement, and other surfaces is a necessity . . . good brushing characteristics are important.

The Dow Chemical Company has the answer—Methocel—a cold water soluble cellulose ether available in a wide variety of viscosity types. Methocel serves as a pigment disperser, thus minimizing pigment flooding, settling, and caking . . . its protective colloid action insures emulsion stability . . . its controlled viscosity overcomes undue penetration and gives excellent brushing characteristics.

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CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

Section of the
TECHNICAL ASSOCIATION
OF THE PULP & PAPER INDUSTRY
122 E. 42nd St., New York 17, N. Y.
Edited by R. G. Macdonald, Secretary

Water-Soluble Sulphates and Chlorides in Paper and Paperboard*

TAPPI Tentative Standard T 468 m-45

This method is applicable to paper or paperboard containing small quantities of chlorides and sulphates which are soluble in water. It is not designed for analysis of papers containing fillers which are compounds of sulphides, sulphites, and/or sulphates, nor for paper or paperboard containing 1% or more of water-soluble sulphate.

Since the amounts to be determined are small, it is important that the determinations be conducted in an atmosphere free from contaminating materials.

Reagents

A. *Barium Chloride Solution,* approximately 10%. Dissolve 100 grams of $BaCl_2 \cdot 2H_2O$ in distilled water and dilute to 1 liter.

B. *Silver Nitrate Solution,* approximately 5%. Dissolve 5 grams of $AgNO_3$ in distilled water and dilute to 100 ml. This reagent is for the gravimetric chloride method.

C. *Standard Silver Nitrate Solution,* for volumetric chloride method. Dissolve 2.5 grams of $AgNO_3$ in distilled water and dilute to 1 liter. Standardize on 0.03-gram portions of C.P. NaCl by dissolving in water and titrating as described below under procedure. 1 ml. = approximately 0.0005 gram Cl.

D. *Potassium Chromate Indicator,* approximately 5%. Dissolve 5 grams of K_2CrO_4 in distilled water and dilute to 100 ml.

Test Specimen

Cut a representative sample of the paper into approximately 1-cm. squares. A thick paper or board should be separated into thin plies before cutting into squares.

Procedure for Sulphates

Extraction

Weigh out 5 grams of the prepared specimen (*see* note) to the nearest 10 mg. and transfer to a 500-ml. Erlenmeyer flask. Add 250 ml. of boiling distilled water, attach a water or air condenser to the flask, and boil gently for 1 hour. It is desirable to use a ground-glass connection between the flask and the condenser rather than a cork or rubber stopper, on account of the possibility of contamination from the latter. Instead of using a condenser, the flask may be covered with a small watchglass to retard evaporation, replacing evaporated water at intervals.

Filter the contents of the flask through the ashless filter paper in a Büchner funnel, return the paper sample to the flask, add another 200 ml. of boiling water to the paper and again extract for 15 to 30 minutes. Filter through the funnel and filter paper previously used, and wash the extracted specimen and filter paper with 50 ml. of hot water in small portions.

Run "blanks" on the water for each series of specimens tested at one time, putting the blanks through the same operations as the test specimens.

Note. If both sulphates and chlorides are to be determined, only a single specimen is necessary. Weigh out 10 grams of the sample, transfer to a 1-liter flask, add 500 ml. of boiling water, and extract as described above. A second extraction with 400 ml. of water and washing with 100 ml. of water are also carried out as described above. Thoroughly mix the filtrate and washings and divide into two equal parts. (Careful measurement in a graduate is satisfactory.) Determine sulphates on one portion and chlorides on the other.

Determination

To the combined filtrates add 1 ml. of conc. HCl, heat to boiling, and add dropwise with stirring 5 ml. of 10% $BaCl_2$ solution. Digest at approximately 80° C. for 4 hours or longer, filter on a fine-grained, ashless filter paper and wash free of Ba salts with hot water (until the filtrate gives no test for Cl upon addition of $AgNO_3$ solution). Transfer the filter paper and contents to a tared crucible, ignite slowly at first with free access of air to prevent reduction of $BaSO_4$ by the filter paper, and then at 800 to 900°C.; cool, and weigh. Carry out a blank test in the same way on the same amount of water and reagents and subtract any $BaSO_4$ found. Filtration may be made in Gooch crucibles with previously washed and ignited asbestos mats or porous porcelain crucibles, in which case there is no danger of reduction by the filter paper. Calculate the weight of $BaSO_4$, minus the blank, to SO_4 and report as percentage of the air-dry paper.

Calculation: $BaSO_4 \times 0.4115 = SO_4$.

Procedure for Chlorides

Extraction

Prepare a water extract of 5 grams of the paper according to the procedure for sulphates.

Volumetric Method

Combine the filtrates. If the extract is not neutral to litmus paper, adjust to neutrality with very dilute

* This method has been approved as a tentative standard by the Chemical Methods Committee. Criticisms are earnestly requested and should be sent to R. G. Macdonald, Secretary, Technical Association of the Pulp and Paper Industry, 122 E. 42nd St., New York 17, N. Y. Reprints of this standard may be obtained from the Secretary at 25 cents each.

HNO_3 or chloride-free NaOH. Add 5 ml. of 5% K_2CrO_4 solution as indicator, and titrate with the standard $AgNO_3$ solution (1 ml. = 0.0005 gram Cl) to the first appearance of the brick-red color of silver chromate. The titration should be performed in a white porcelain dish or casserole, or over a white surface. Use as a standard for comparison of color at the end point a determination performed similarly and to which subsequently a slight excess of soluble chloride has been added. The first difference in color between the comparison standard and the solution being titrated denotes the end point. The titration may be performed under a Mazda lamp.

Carry out a blank determination of the same amount of the water as used for extraction of the paper and subtract the volume of $AgNO_3$ required for the blank from that used for the titration of the paper extract. From the difference calculate the percentage of chlorides (Cl) in the air-dry paper.

GRAVIMETRIC METHOD

To the combined filtrates, add 1 ml. of conc. HNO_3 and heat the solution to boiling. Add slowly with constant stirring 5 ml. of 5% $AgNO_3$ solution. Keep the solution hot and stir frequently until the AgCl is coagulated. Filter through a previously prepared, dried and tared Gooch crucible. Wash the crucible and precipitate with 100 ml. of dilute HNO_3 (1:100), or until the washings are free of $AgNO_3$, and finally with two portions of water. Dry the crucible and contents at 130° C. to constant weight. Calculate the content of chlorides (Cl) as percentage of the air-dry paper, after subtracting any Cl found in the blank run under the same conditions.

Calculation: $AgCl \times 0.247 = Cl$.

Brooklyn Polytech Holds Clinic

In the first clinic of its kind in the country, 14 practicing chemists from leading industrial firms last week completed an intensive study of a number of modern techniques of polymer chemistry at the Polytechnic Institute of Brooklyn. Designed for an advanced instruction of industrial chemists, this first laboratory clinic on the weight and shape of polymer molecules opened Monday, July 23rd for a five-day period.

Under the direction of Dr. Herman F. Mark, director of Polytechnic's Highpolymer Research Bureau, the clinic was presented to acquaint workers in industry with the new laboratory methods as they have been developed at the Institute. These methods of tomorrow, while announced in publications and before scientific meetings, seldom can be seen in actual practice. Polytechnic's research facilities for highpolymer chemistry are the most complete of their kind in the country and several of the techniques and instruments have been developed or improved by the Polytechnic scientists.

The clinic was organized as the first move to make these research facilities available to industrial chemists in a manner not possible in general graduate courses.

Correction

In the paper by Donald T. Jackson "Some Applications of Pulp and Paper in the Plastics Industry", which appeared in the June 28, 1945 issue of the PAPER TRADE JOURNAL there is a typographical error in Table I. The total value of "Plastic materials (Synthetic resins and cellulose plastics) for the year 1939 should be $77,653,000 instead of $37,881,000.

Michigan Superintendents Golf at Kazoo

KALAMAZOO, Mich., July 28, 1945—The annual golf tournament and summer outing of the Michigan Division of the American Pulp and Paper Mill Superintendents Association was held at the Maple Hills course Thursday afternoon, July 26, 1945, followed by a dinner at the Park-American Hotel in the evening at which sixty-eight were present.

Forty-three contestants teed off in the tournament and the final tabulations as announced by the golf committee chairman, W. S. Taylor were as follows:—Closest to pin at ninth hole—A. W. Cole and W. D. Saunders. 2. Blind Bogey—Henry Nendorf and Jack Dickson. 3. Most Exercise—F. L. Chappell and A. A. Christian. 4. Low Net—W. R. Tobin and W. D. Saunders. 5. Low Gross—Clinton Wainwright and L. M. Halleck. 6. Bogus Money Winners, Glen Sutton and Walter Moore.

The committee on arrangements were Messrs Taylor, Bartholomew, Hoelderle, Pearson and Woolaam. Following the dinner, division chairman, Joe Waber, expressed his pleasure at the good attendance and thanked the committee members for their work in making the event a most satisfactory and successful party. Brief talks were made by national president, Ray L. Barton, now serving his second year; Steve Murphy of Appleton, Wis. and Ed. J. Thom, sales manager of the pulp division of the Howard Smith Paper Mills, Montreal, Quebec.

Salesmen Play Golf August 14

The golf committee of the Eastern Division of the Salesmen's Association of the Paper Industry, will hold its August golf outing at the Winged Foot Course, Mamaroneck, N. Y. on August 14. Play will start after lunch and the links will be open all day. The charge is $12 a person, including lunch, dinner, green fees and locker facilities.

Early reservations are requested by Robert E. Estes, chairman of the committee, and should be made to E. O. Merchant, treasurer, 122 East 42nd street, New York 17, N. Y.

Form TAPPI Branch in Powell River

[FROM OUR REGULAR CORRESPONDENT]

VANCOUVER, B. C., July 30, 1945—Formation of a section of the Technical Association of the Pulp and Paper Industry of Canada in British Columbia is now under consideration. Douglas Jones, of the Canadian Pulp and Paper Association recently paid a visit to the plant of the Powell River Company at Powell River, B. C., and arranged for the establishment of a local branch there. A temporary committee has been appointed under the guidance of Harry Andrews, control superintendent of the Powell River Company, and member of the T.A.P.P.I. in the United States.

Hollingsworth Back on the Job

SYRACUSE, N. Y., August 1, 1945—Thomas E. Hollingsworth, who has been serving in the Containers Division of the War Production Board for the past sixteen months, has returned to 602 Herald Building, at which point he represents the River Raisin Paper Company for New York State and Northern Pennsylvania.

Bacteriological Examination of Mill Process Water*

TAPPI Tentative Standard T 631 m-45

Scope

The sanitary examination of water—that is, examination to determine its suitability for drinking—should be made according to the procedure prescribed by the American Public Health Association *(1)*. This procedure will not be discussed here. However, a knowledge of the bacterial content of fresh water and of recirculated waters is of importance in the bacteriological control of paper and pulp mills. The efficiency of a water-treatment plant depends in part upon its ability to remove and/or to destroy microorganisms present in the water supply. Occasional determinations of the bacterial content of such waters will supply information for evaluating the bacteriological control used in water treatment. In addition to the fresh water, recirculated waters should also be examined for their bacterial content.

The procedures outlined herewith represent what may be considered at this time as minimum standard practice. Because of the exacting techniques required in bacteriological procedures, they can be expected to yield reproducible results only in the hands of properly trained technicians. Likewise, more than usual care must be exercised in the collection and shipment of samples. If possible, this work should be done by a bacteriologist.

Apparatus and Equipment

The following apparatus may be obtained from the usual laboratory supply houses.

1. *Balance.* This should be equipped with a platform of a size to readily accommodate the Petri dishes used. It should be sensitive to 0.1 gram.

2. *Colony Counter.* Any one of several types may be used. The Quebec, the Buck, and the Wolffhuegel colony counters have been found satisfactory. A hand tally for recording the count is recommended.

3. *Cotton.* Rolls of nonabsorbent cotton are used for making plugs.

4. *Dilution Bottles.* 8-oz. narrow-mouthed, square-sectioned glass bottles fitted with screw caps are used for water blanks.

5. *Flaming Equipment.* Depending upon the circumstances, an alcohol lamp, a gasoline blowtorch, or a Bunsen burner may be used to flame mouths of sterile containers.

6. *Flasks.* 200-ml. Erlenmeyer flasks may be used as containers for sterile media.

7. *Incubator.* A reliable incubator which will maintain a temperature of 37 ± 0.5°C. is necessary to provide proper incubation conditions for the inoculated plates and tubes.

8. *Petri Dishes.* Petri dishes, 100 by 15 mm. and preferably of Pyrex glass, are recommended for plating samples. They may be sterilized conveniently in metal boxes (preferably copper) fitted with covers.

9. *Pipets.* Two sizes of pipets are used, 1.1-ml. milk-dilution type and 10-ml. ordinary type. Pipets are placed in metal boxes (preferably copper) to be sterilized.

10. *Sample Bottles.* 8-oz. wide-mouthed bottles either glass-stoppered or with aluminum screw caps, are used for collecting water samples. The bottles should be selected with care so that they will withstand sterilization. The stoppers and necks of the glass-stoppered bottles are protected from contamination by metal foil, heavy kraft paper, or oilcloth. A strip of paper also is inserted in the mouth of the glass-stoppered bottle to prevent sticking of the stopper during sterilization.

11. *Sampling Scoop.* A tinsmith can make a suitable scoop *(see* Fig. 1) from tinned iron sheet. The diameter of the scoop will depend upon the opening of the sample bottle, while the length will be about 10 inches. A conveniently placed handle completes the scoop. The scoops are wrapped individually in heavy kraft paper kept closed by rubber bands during sterilization. If desired, a large spoon may be substituted for the scoop.

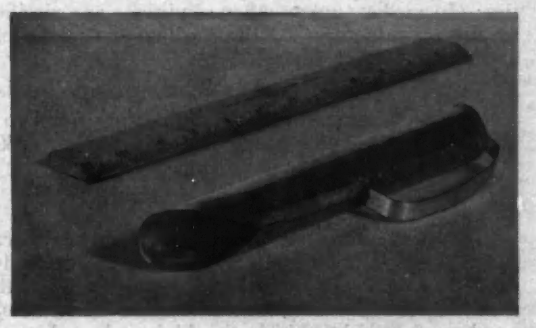

FIG. 1
Sampling Scoop

12. *Sterilizers.* Two types are needed, the particular style and size depending upon the needs of each laboratory.

(a) A steam sterilizer, such as the pressure cooker or the autoclave. When much sterilization is required, the added convenience of a well regulated modern autoclave will justify the additional expense.

(b) A hot-air oven. For most laboratories, electrically heated ovens are more satisfactory than those heated by gas, but the latter may be used if desired.

In both cases, thermometers are used to determine the inside temperature during sterilization.

13. *Test Tubes.* These are used for tubing media and for making fermentation tubes. Two sizes, without lip, are needed: *(a)* 18 by 150 mm.; *(b)* 10 by 75 mm. Pyrex glass is preferable, but a good grade

* This method has been approved as a tentative standard by the Bacterial Control Methods Committee. Criticisms are earnestly requested and should be sent to R. G. Macdonald, Secretary, Technical Association of the Pulp and Paper Industry, 122 E. 42nd St., New York, N. Y. Reprints of this standard may be obtained from the Secretary at 25 cents each.

of so-called "Board of Health" tubes is usually satisfactory.

Chemicals and Media

A. *Alcohol.* Either methyl alcohol or 95% denatured ethyl alcohol, is used to sterilize by flaming.

B. *Standard Nutrient Agar.* Difco dehydrated nutrient agar is recommended. It may also be prepared from the ingredients, according to the procedure outlined by the A.P.H.A. *(2)*. After the medium is dissolved, the hot mixture is placed in Erlenmeyer flasks, dilution bottles, or test tubes, and plugged. It is then ready to be sterilized.

C. *Special Media (3).* For the detection of coliform bacteria, and particularly the fecal type, the following dehydrated media are recommended: *(a)* brilliant green lactose bile; *(b)* Endo agar; *(c)* eosin-methylene blue agar; *(d)* violet red bile agar; *(e)* lactose broth; *(f)* methyl red and Voges-Proskauer broth.

Note: These special media are necessary only when a determination of bacteria of the *coli-aerogenes* group is required. Directions for their use are given in the literature *(4)*.

D. Water blanks should be made from tap water and not distilled water.

Sterilization of Equipment and Media

Depending upon the nature of the equipment to be sterilized, one of two methods is followed:

1. Steam Heat (pressure cookers and autoclaves)

The following are sterilized by heating for 20 minutes at a minimum of 121°C. (250°F.), corresponding to 15 p.s.i steam pressure: *(a)* sample bottles; *(b)* media (unless other conditions are specified by the manufacturer of the medium); *(c)* scoops; and *(d)* water for dilutions.

2. Dry Heat (electrically or gas-heated ovens)

The following are sterilized by heating for 4 to 5 hours at a minimum temperature of 165°C. (330° F.): *(a)* Petri dishes, and *(b)* pipets.

Sampling

It is an axiom in bacteriological control that occasional single samples are inadequate, since the analyses reflect the conditions which prevailed only at the time when such samples were taken. The actual number of samples which should be taken depends largely on the reasons which prompt the analyses.

Use a sterile metal scoop or spoon for collecting the sample. Dip from the tank, stream, etc., using proper precautions to avoid contamination from the hands coming in contact with the water. Transfer the sample to a sterile, wide-mouthed bottle, discarding any paper liner used in the bottle; replace the stopper and retain the sample for dilution and plating.

If free chlorine is known or suspected to be present in portions of the mill system to be sampled, adequate provision should be made to destroy the chlorine residual as soon as the sample is introduced into the sample bottle. A sufficient amount of sodium thiosulphate (solid or solution) may be placed in the sample bottle prior to its sterilization to destroy the chlorine residual.

Plating and Incubating

The plating and culturing of water samples should be done in a room which is relatively free of air currents and dust. The surface of the work table should be sponged with a 5% aqueous solution of phenol about a half hour before plating.

The dilutions to be plated will depend upon the sample. Chlorinated fresh-water samples usually have a very low bacterial content, hence 1.0-ml. and 0.1-ml. portions should suffice for plating. On the other hand, the bacterial content of many recirculated waters is very high. It may be necessary to plate dilutions as high as 0.000001 ml. Experience within a given mill system will soon enable the bacteriologist to determine what dilutions should be plated. In all cases the aim shall be to obtain plate counts in the range of 30 to 300 colonies per plate.

In making dilutions, measure 1 ml. of the sample into a sterile 99-ml. water blank and shake the mixture thoroughly. Remove two dilutions by the use of a sterile 1.1-ml. pipet. The 0.1-ml. portion will contain 0.001 ml. of the original sample and the 1.0-ml. portion will contain 0.01 ml. of the original sample. Follow this procedure until the desired number of dilutions have been made.

Add approximately 15 ml. of standard nutrient agar, cooled to about 45°C. (113°F.), to each plate. Rotate the plates to obtain uniform mixing. Pour one control plate for every ten plates containing sample.

After the plates have been agitated, place them on a level surface until the medium solidifies; then invert and incubate the plated samples at 37 ± 0.5°C. (98 ± 1°F.) for 48 hours. Do not stack the plates too closely in the incubator.

Counting Plate Cultures

After incubation for 48 hours at 37°C. in an atmosphere practically saturated with moisture, examine the cultures for the presence and number of colonies by holding the plates against a dark background, indirectly lighted. Plate counters are especially desirable.

If any particles are observed in the cultures which cannot be definitely identified as colonies, they should be examined microscopically. Plates with spreading colonies should be counted if at all possible; otherwise, they should be reported as "spreading colonies." Examine control plates also and make a record of the number of colonies found on the control of each water sample.

Calculation of Results

Express bacterial counts on samples of fresh water and all recirculated waters as colonies per milliliter.

Report

Report the average number of colonies per milliliter according to the following method *(5)*:

Number of colonies per ml.		Report to nearest
1 to	50	1
51 to	100	5
101 to	250	10
251 to	500	25
501 to	1,000	50
1,001 to	10,000	100
10,001 to	50,000	500
50,001 to	100,000	1,000
100,001 to	500,000	10,000
500,001 to	1,000,000	50,000
1,000,001 to	10,000,000	100,000

Literature Cited

1 Am. Public Health Association, "Standard Methods for the Examination of Water and Sewage," 8th Ed., pp. 196-223 (1936).
2. *Ibid.*, p. 201.
3. *Ibid.*, pp. 201-205.
5. *Ibid.*, p. 209.
4. *Ibid.*, pp. 268-274.

Index, Technical Section, Paper Trade Journal Volume 120, January to June, 1945

Prepared by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The page numbers in the following index refer to the continuous pagination of the *Technical Section* and not to the individual numbers of the PAPER TRADE JOURNAL. The names of authors in the index are printed in capitals.

To Facilitate Reference

To facilitate reference to the individual numbers of the PAPER TRADE JOURNAL, the following table of the pagination of the *Technical Section* appearing in each of the 26 numbers of Volume 120 (January to June, 1945) is given:

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Second Quarter, 1945

Compiled by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The following list of patents has been compiled from the current issues of the Official Gazette of the United States Patent Office. Because, as a rule, only one claim is published in the Gazette, it is not claimed that the list is complete; further, it is possible that the list may contain some patents which do not apply specifically to pulp and paper manufacture.

Copies of any of the following patents may be obtained from the United States Patent Office, Washington 25, D. C., by sending ten cents for each patent desired. The number of the patent, the name of the inventor, and the title of the patent should be given. Personal checks and postage stamps are not accepted in payment for patents. Books of coupons may be purchased for two or ten dollars, good for 20 or 100 patents. Coupon orders do not have to be accompanied by letters of transmittal.

April 3, 1945

2,372,666. Adhesive starch composition and method of making same. James E. Fenn, assignor to Stein, Hall & Co. Inc., New York, N. Y. Filed Feb. 8, 1941. 9 claims. (Cl. 106-210). A starch composition in which more than 55% of the starch is in enzyme-converted form and less than 45% is in ungelatinized form; it contains less than 10% of a basic metal chloride pasting inhibitor.

2,372,735. Packaging wrapper and method of producing the same. John F. Palmer, Waukesha, Wis. Filed Jan. 17, 1941. 1 claim. (Cl. 154-50). A flexible wrapper in which the inner sheet (coated on both sides with wax) is joined along spaced lines to outer sheets, the inner faces of which are wax coated.

2,372,740. Cylindrical container. William A. Ringler, assignor to The Gardner-Richardson Company, Middletown, Ohio. Filed Oct. 2, 1942. 2 claims. (Cl. 229-5.5).

2,372,755. Impregnating apparatus. Walter P. Abell, assignor to United Shoe Machinery Corporation, Flemington, N. J. Filed Sept. 14, 1942. 22 claims. (Cl. 91-46). A method of immersing material in a tank holding a liquid impregnant.

2,372,764. Bearing mount for papermaking machines. Everett W. Clem and John P. Munton, assignors to Rice Barton Corporation, Worcester, Mass. Filed Dec. 8, 1942. 7 claims. (Cl. 92-44). A bearing for a roll carrying an open mesh screen.

2,372,783. Adjustment for running register. Charles Jacobson, assignor to S. & S. Corrugated Paper Machinery Company, Inc., Brooklyn, N. Y. Filed Jan. 30, 1943. 2 claims. (Cl. 74-395). A running adjustment for a driven shaft carrying a drum, the shaft being rotated by a gear.

2,372,805. Container fastening means. Philip Zalkind, New York, N. Y. Filed Jan. 10, 1941. 1 claim. (Cl. 229-48).

2,372,806. Wall connection for collapsible containers. Philip Zalkind, New York, N. Y. Filed Feb. 28, 1942. 3 claims. (Cl. 217-69).

2,373,010. Bag closure. Charles V. Brady, assignor to Bemis Bro. Bag Company, St. Louis, Mo. Filed May 23, 1942. 4 claims. (Cl. 229-62).

2,373,025. Match book. Reynolds Guyer, assignor to Waldorf Paper Products Company, St. Paul, Minn. Filed July 9, 1941. 1 claim. (Cl. 206-29).

April 10, 1945

2,373,305. Tungsten ore flotation. Elmer W. Gieseke, assignor to American Cyanamid Company, New York, N. Y. Filed Oct. 7, 1942. 3 claims. (Cl. 209-166). Among the reagents used are tall oil, or its sodium, potassium, or ammonium soap.

2,373,340. Bag and method of filling same. Howard A. Rohdin, Glen Ridge, N. J. Filed Nov. 12, 1942. 3 claims. (Cl. 229-62.5). A flexible walled bag having a heat-sealable inner surface at least adjacent to its mouth.

2,373,408. Container handle. James C. Morris, assignor to The Ohio Boxboard Company, Rittman, Ohio. Filed Dec. 10, 1943. 3 claims. (Cl. 229-52).

2,373,423. Box. Frank C. Shina, assignor to United Paperboard Company, New York, N. Y. Filed Nov. 27, 1942. 2 claims (Cl. 229-39).

2,373,500. Method and apparatus for making felted materials. Gale T. Pearce, assignor to Johns-Manville Corporation, New York, N. Y. Filed Jan. 1, 1943. 12 claims. (Cl. 154-27). A method of making a uniform thickness sheet product from a sheet of felted fibers in which the fibers lie predominantly in planes parallel to the face of the sheet.

2,373,524. Wrapper for cigarette packages. Walter G. Vollmer, assignor of one half to Henry Haacke, St. Louis, Mo. Filed July 5, 1943. 2 claims. (Cl. 229-51).

2,373,567. Bending of boards. John W. Jackson, Winnetka, Ill. Filed Oct. 16, 1942. 11 claims. (Cl. 144-268).

2,373,597. Adhesive composition and method of adhering waxed surfaces. James R. Purdon, assignor to The B. F. Goodrich Company, New York, N. Y. Filed April 7, 1941. 10 claims. (Cl. 154-40). An adhesive for waxed paper consists of an aqueous dispersion of rubber and corn sirup, the corn sirup being 15 to 35 parts by weight per 100 parts of the aqueous dispersion.

2,373,634. Pressure-sensitive adhesive tape. Charley L. Wagner, assignor to Marathon Corporation, Rothschild, Wis. Filed Nov. 15, 1943. 4 claims. (Cl. 117-122). Creped paper is coated with microcrystalline wax containing up to 25% by weight of paraffin wax.

April 17, 1945

2,373,701. Carton. Trenton Meredith, assignor to Colgate-Palmolive-Peet Company, Jersey City, N. J. Filed April 22, 1941. 2 claims. (Cl. 229-16).

2,373,708. Application of closures to containers. John F. Price and Isaac L. Wilcox, assignors to Oswego Falls Corporation, Fulton, N. Y. Filed Feb. 20, 1940. 12 claims. (Cl. 226-83).

2,373,709. Coating composition and method of making same. William J. Rice, Brooklyn, N. Y. Filed Dec. 30, 1941. 4 claims. (Cl. 106-219). A mixture of rosin and tall oil (rosin being the major constituent) and lime equal to 10-15% of the rosin in the mixture forms a hard resin soluble in organic solvents.

2,373,730. Self-locking container. Marshall I. Williamson and Vincent R. Pantalone, assignors to National Folding Box Company, New Haven, Conn. Filed Aug. 19, 1943. 5 claims. (Cl. 229-35).

2,373,738. Sheet material. Harry N. Atwood, Mellen, Wis. Filed Nov. 1, 1941. 2 claims. (Cl. 154-45.9). Self-sustaining sheet material comprising a plurality of laminations of interlocked, form-retaining strips encased in a plastic.

2,373,744. Bag closure. Philip S. Coghill, assignor to E. I. du Pont de Nemours & Company, Wilmington, Del. Filed Oct. 25, 1941. 4 claims. (Cl. 93-35).

2,373,849. Apparatus for applying treating or coating materials to paper. Edward Palmer, assignor to Ohio Wax Paper Company, Columbus, Ohio. Filed Sept. 7, 1942. 2 claims. (Cl. 91-51).

2,373,851. Bottle carrier. Earl C. Potter, assignor to Container Corporation of America, Chicago, Ill. Filed Jan. 24, 1940, 8 claims. (Cl. 224-45).

2,373,914. Method of forming asbestos papers with gel binders. Robert G. Quinn, assignor to Johns-Manville Corporation, New York, N. Y. Filed Apr 12, 1940. 2 claims. (Cl. 92-40). The paper is formed of asbestos fibers and a binder containing the reaction product of lime and diatomaceous earth.

2,373,977. Foldable box. John H. Scherer, assignor to Brown & Bailey Company, Philadelphia, Pa. Filed Sept. 18, 1943. 4 claims. (Cl. 229-31).

2,373,978. Tall oil treatment. Ernest Segessemann, assignor to National Oil Products Company, Harrison, N. J. Filed Jan. 1, 1942. 3 claims. (Cl. 260-97.5). A method of separating a fatty acid fraction from tall oil by cooling a solution in alcohol.

2.373.979. Esterified tall oil treatment. Ernest Segessemann, assignor to National Oil Products Company, Harrison, N. J. Filed Jan. 1, 1942. 2 claims. (Cl. 260-97.5). Lower alkyl esters of tall oil fatty acids are separated by chilling an acetone solution of the esterified tall oil.

2,374,005. Interlocking container. William O. Fisler, St. Louis, Mo. Filed May 31, 1943. 1 claim. (Cl. 229-84).

2,374,006. Carton. William G. Freel, Joseph E. Diver, and Samuel F. Jones, assignors to William P. Frankenstein. Cincinnati. Ohio. Filed April 23, 1941. 7 claims. (Cl. 206-44). A display carton formed from a single cardboard blank.

2,374,026. Envelope construction. Martha McKeen, Easton, Pa. Filed March 6, 1941. 1 claim. (Cl. 229-68).

2,374,103. Apparatus for attaching adhesive tape to masking paper. Morris T. Johnson, Milwaukee, Wis. Filed Nov. 11, 1943. 2 claims. (Cl. 242-55.4).

2,374,113. Solvent emulsion cleaner. Charles S. Lowe, assignor to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Filed Nov. 19, 1943. 6 claims. (Cl. 252-118). One of the constituents of the composition is tall oil.

2,374,128. Method of making a bag material and the product thereof. Carl W. Pinckert, assignor to Bemis Bro. Bag Company, St. Louis, Mo. Filed Sept. 27, 1943. 3 claims. (Cl. 154-2). A multiwall bag.

2,374,147. Baling bag closing apparatus. Arnold N. Weeks, assignor to Bemis Bro. Bag Company, St. Louis, Mo. Filed Jan. 14, 1943. 2 claims. (Cl. 226-2).

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2,374,177. Container. Samuel W. Conner, Jean R. Neil, and Paul A. Nemoede, assignors to Container Corporation of America, Chicago, Ill. Filed April 12, 1943. 4 claims. (Cl. 229-44).

2,374,214. Conductive papers. Bernard L. Kline and Curt E. Mobius, assignors to The Western Union Telegraph Company, New York, N. Y. Filed July 27, 1939. 4 claims. (Cl. 92-21). The paper contains a mixture of finely divided metal particles and a fusible organic compound (mono- or dihydric alcohol or sugar).

2,374,323. Decalcomania. Alphonse Bihr, assignor to Palm, Fechteler & Co., New York, N. Y. Filed Aug. 18, 1942. 11 claims. (Cl. 40-134).

2,374,366. Paper basket and container. Philip K. Madan, assignor to Perfection Products Co., Inc., Mount Vernon, N. Y. Filed Nov. 16, 1943. 9 claims. (Cl. 229-6).

2,374,382. Cellular carton. Robert E. Rutledge, assignor to Sutherland Paper Company, Kalamazoo, Mich. Filed June 15, 1942. 2 claims. (Cl. 229-29).

2,374,390. Receptacle. Harry L. Snyder, West Los Angeles, Calif. Filed May 8, 1943. 2 claims. (Cl. 229-41).

2,374,458. Leakproof carton. Edwin C. Siewert, assignor to Marathon Corporation, Rothschild. Wis. Filed March 13, 1944. 2 claims. (Cl. 229-16).

2,374,481. Container. Alva J. Godshalk, assignor to Inland Steel Container Co., Chicago, Ill. Filed Jan. 20, 1943. 1 claim. (Cl. 229-5.5).

2,374,504. Sealing and crimping rollers for packaging machines. Leroy L. Salfisberg, assignor to Ivers-Lee Company, Newark, N. J. Filed Oct. 31, 1944. 6 claims. (Cl. 93-3).

2,374,514. Manufacture of electric cables. Russell S. Vincent, assignor to Callender's Cable & Construction Company Limited, London, England. Filed Oct. 14, 1942. 12 claims. (Cl. 154-2.28). Method of manufacture of a conductor having a dielectric of impregnated paper.

2,374,539. Box. Reynolds Guyer, assignor of Waldorf Paper Products Company, St. Paul, Minn. Filed Feb. 16, 1942. 1 claim. (Cl. 217-5).

May 1, 1945

2,374,700. Purification of tall oil. Arthur Pollak and Thomas A. Willingham, assignors to West Virginia Pulp and Paper Company, New York, N. Y. Filed July 29, 1939. 5 claims. (Cl. 260-97.5). The color of tall oil is improved by heating it in the absence of air to a temperature in excess of 400° F. but below that at which pyrolytic decomposition occurs.

2,374,741. Pigment preparation. Frederick W. Gage and Paul J. Gegner, assignors to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Filed March 20, 1943. 6 claims. (Cl. 106-306). A method of coating finely divided calcium carbonate in an alkaline aqueous slurry with tall oil and drying the coated pigment below 120° C.

2,374,745. High-pressure steam preheater roll. Carl W. Grimm, assignor to Henry Pratt Company, Chicago, Ill. Filed March 3, 1944. 1 claim. (Cl. 257-95). A balanced high-pressure steam preheater and conditioner roll for a corrugating unit for a corrugated paper strip assembly.

2,374,767. Grease-resistant film. James A. Mitchell and Daniel D. Lanning, assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. Filed Sept. 2, 1942. 1 claim. (Cl. 117-144). Regenerated cellulose is coated with a composition consisting of 39% of polyvinyl acetate, 39% of cellulose nitrate, and 22% of di(ethylene glycol monomethyl ether) phthalate.

2,374.793. Method of fluid-tight packaging. Harry F. Waters, New York, N. Y. Filed June 20, 1940. 14 claims. (Cl. 93-3). An envelope is coated with a fluid-tight and fusible material.

2,374,798. Envelope. Eugene B. Berkowitz, assignor to Tension Envelope Corporation of Kansas City, Kansas City, Mo. Filed Aug. 3, 1942. 3 claims. (Cl. 229-77).

2,374-862. Coating for paper. Barrett K. Green, assignor to The National Cash Register Company, Dayton, Ohio. Filed June 19, 1942. 16 claims. (Cl. 106-137). A liquid emulsion having a continuous phase which is a solution of a solid in a drying liquid, the solid being rupturable by marking pressure and having a discontinuous phase of a low-polarity oily liquid containing a marking chemical.

2,374,975. Refining tall oil. Joseph N. Borglin, assignor to Hercules Powder Company, Wilmington, Del. Filed March 17, 1942. 12 claims. (Cl. 260-97.5). Tall oil is heated with a boron compound (boric acid or borax) and the treated oil is distilled under reduced pressure.

2,375,019. Stabilization of soils. Abraham B. Miller, assignor to Hercules Powder Company, Wilmington, Del. Filed Oct. 18, 1940. 6 claims. (Cl. 106-123). Soil is stabilized for use as a construction material by mixing with it from 0.2 to about 10% of lignin.

May 8, 1945

2,375,182. Manufacture and testing of fiber mats. Herman W. Anway, assignor to Wood Conversion Company, Cloquet, Minn. Filed Jan. 15, 1940, 15 claims. (Cl. 20-4). A method of testing the minimum non-settling density of fibers with respect to a predetermined maximum impact.

2,275,244. Method of making a waterproof felted sheet. Paul W. Pretzel, Brookfield, Ill. Filed March 28, 1940. 2 claims. (Cl. 92-21). Chrysotile asbestos is beaten to a jelly-like state, mixed with cellulose fibers, the asbestos-coated fibers mixed with rubber latex containing a vulcanizing agent, the mixture is formed into a sheet, and the product dried at an elevated temperature to vulcanize the rubber.

2,275,245. Manufacture of rubberized fibers and sheets. Paul W. Pretzel, Brookfield, Ill. Filed Aug. 25, 1941. 3 claims. (Cl. 92-21). Cellulose fibers are hydrated in water, suspended in a solution of an aluminum salt, the aluminum is precipitated as the hydroxide by addition of ammonium hydroxide, and the product is mixed with an aqueous emulsion (rubber latex), which is precipitated and held on the surfaces of the positively charged precipitate contained in the fiber walls.

2,375,263. Method of making abrasive articles. Frederick A. Upper, assignor to The Carborundum Company, Niagara Falls, N. Y. Filed June 27, 1944. 8 claims. (Cl. 51-297).

2,375,266. Combined spoon and lid for containers. Robert C. Wilson, assignor of one-fourth to Richard W. Wilson, Chula Vista, Calif. Filed Sept. 7, 1943. 2 claims. (Cl. 229-1.5).

2,375,276. Method for treating sheet materials. George B. Brown, assignor to Johns-Manville Corporation, New York, N. Y. Filed Oct. 27, 1942. 2 claims. (Cl. 25-154). A process for smoothing a rough surface of a substantially rigid but incompletely hardened fibro-cementitious sheet.

2,375,360. Method of coating paper. Walter W. Herrick, assignor to Riegel Paper Corporation, New York, N. Y. Filed April 3, 1942. 6 claims. (Cl. 117-64). A layer of high melting point wax is maintained on top of a molten bath of bismuth, tin, and cadmium; the web is passed through the layer of wax and the molten bath, the latter levelling the wax coating.

2,375,403. Process of impregnating webs. Michele Croce, assignor to Certain-Teed Products Corporation, New York, N. Y. Filed Sept. 14, 1940. 2 claims. (Cl. 117-68). A thermoplastic saturant is applied to one side of the web until air and moisture are driven out at the opposite face of the web and then the saturant is applied to both faces of the web.

2,375,414. Manufacture of rubber treated fiber. Clark C. Heritage, assignor to Wood Conversion Company, Cloquet, Minn. Filed May 22, 1940. 2 claims. (Cl. 92-6). Dispersed rubber is added to vegetable fibers while they are being defiberized.

2,375,450. Manufacture of surface-hardened fiberboard. Henry E. Walter, assignor to Wood Conversion Company, Cloquet, Minn. Filed Feb. 3, 1940. 3 claims. (Cl. 92-40). A method of adding a water emulsion of a drying oil and a small quantity of a drier to a wet mat for an insulation board.

2,375,493. Apparatus for coating. Robert J. Randall, assignor to Reiss Manufacturing Corp., Jersey City, N. J. Filed June 14, 1941. 8 claims. (Cl. 91-17). An apparatus for coating tape or the like.

2,375,544. Packing bag. René Faillot; vested in the Alien Property Custodian. Filed Feb. 1, 1943. 7 claims. (Cl. 229-55).

2,375,631. Bottle carrier. Jean F. De Villard, assignor to Morris Paper Mills, Chicago, Ill. Filed March 20, 1940. 6 claims. (Cl. 224-45).

2,375,632. Container and closure with opening means therefor. Pasquale V. Di Cosmo, assignor to The Canister Company, Phillipsburg, N. J. Filed Dec. 3, 1942. 5 claims. (Cl. 229-51).

2,375,647. Match book. Reynolds Guyer, assignor to Waldorf Paper Products Company, St. Paul, Minn. Filed June 27, 1941. 4 claims. (Cl. 206-29).

2,375,676. Machine for preparing newsprint paper for use as pencil sheaths. Kay Miller, assignor to Joseph Dixon Crucible Company, Jersey City, N. J. Filed Nov. 14, 1942. 4 claims. (Cl. 92-68). Means for passing a strip between heating elements.

2,375,700. Ventilated shipping box. Lyle V. Singley, Bloomington, Ill. Filed Feb. 25, 1944. 3 claims. (Cl. 229-6).

May 15, 1945

2,375,786. Method of producing improved calcium sulphite. Gerald Haywood and Wright M. Welton, assignors to West Virginia Pulp and Paper Company, New York, N. Y. Filed Aug. 2, 1940. 18 claims. (Cl. 23-129).

2,375,809. Container. George A. Moore, New York, N. Y. Filed Feb. 27, 1943. 2 claims. (Cl. 229-14).

2,375,812. Coating machine. Elof Nordstrom and Victor T. Grover, assignors to American Can Company, New York, N. Y. Filed Oct. 3, 1941. 1 claim. (Cl. 91-51). Machine for applying a liquid adhesive to web material.

2,375,813. Method of making coated abrasive. Nicholas E. Oglesby, assignor to Behr-Manning Corporation, Troy, N. Y. Filed June 9, 1941. 11 claims. (Cl. 51-295).

2,375,814. Coated abrasive. Nicholas E. Oglesby, assignor to Behr-Manning Corporation, Troy, N. Y. Filed Oct. 6, 1942. 8 claims. (Cl. 51-301).

2,375,826. Vortex separator apparatus for treating paper pulp. Harold E. B. Scott, assignor to Vickerys Limited, London, England. Filed July 22, 1940. 10 claims. (Cl. 92-28).

2,375,843. Collapsible shipping and display carton. Harold A. Gottlieb, Brooklyn, N. Y. Filed May 31, 1941. 3 claims. (Cl. 206-44).

2,376,024. Composition shingle. Jesse T. Barrett, Eudora, Ark. Filed Feb. 15, 1944. 5 claims. (Cl. 108-7).

2,376,069. Adhesive applying machine. Harold W. Martin, assignor to American Seal-Kap Corporation of Delaware, Wilmington, Del. Filed Oct. 15, 1943. 12 claims. (Cl. 91-47).

2,376,200. Process for treating fibrous materials and products so produced. Leonard Smidth, New York, N. Y. Filed Feb. 25, 1942. 11 claims. (Cl. 260-29). A method of impregnating cellulosic sheet material with a urea-formaldehyde resin.

2,376,256. Packaging method. Karl R. Karlson, assignor to Union Bag and Paper Corporation, New York, N. Y. Filed May 26, 1941. 5 claims. (Cl. 93-3). Method of forming a bottom seal for a bag.

May 22, 1945

2,376,342. Manufacture of abrasives. Richard P. Carlton, assignor to Minnesota Mining to Manufacturing Company, St. Paul, Minn. Filed July 8, 1941. 6 claims. (Cl. 117-17).

2,376,343. Manufacture of abrasives. Richard P. Carlton, assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn. Filed July 28, 1942. 6 claims. (Cl. 117-17).

2,376,360. Mechanism for heat sealing package seam joints. Hans O. Irmscher, assignor to National Urn Bag Company, Inc., Filed July 16, 1941. 9 claims. (Cl. 93-27).

2,376,460. Sheet cutter. Ray U. Strandberg, assignor to Standard Brands Incorporated, New York, N. Y. Filed Aug. 21, 1943. 4 claims. (Cl. 164-47).

2,376,470. Sheet cutter. Casper E. Youngchild, assignor to International Paper Company, New York, N. Y. Filed Feb. 26, 1944. 6 claims. (Cl. 164-47).

2,376,530. Receptacle. Karl H. Dittmann, assignor to Jack & Heintz, Inc., Cleveland, Ohio. Filed Feb. 24, 1944. 2 claims. (Cl. 229-14). A shipping container.

2,376,653. Laminated structure. Ralph V. Boyer, assignor to General Electric Company, Schenectady, N. Y. Filed March 31, 1942. 1 claim. (Cl. 154-45.9).

2,376,660. Method of reinforcing box corners and reinforcement therefor. Daniel E. Clark, assignor of one half to James E. Dakin, Jr., Lynn, Mass. Filed Sept. 18, 1943. 2 claims. (Cl. 229-49).

2,376,687. Process of making a fibrous thermoplastic product. Philip Goldstein and Harold R. Gillette, assignors to Federal Electric Co., Inc., Chicago, Ill. Filed June 7, 1943. 10 claims. (Cl. 92-21). Cellulosic fibers, pinewood pitch resin, and an oxide or hydroxide of zinc, calcium, lead, or magnesium are consolidated while substantially dry at a temperature of 275 to 340° F. and a pressure of 600 to 1000 p.s.i.

2,376,688. Thermoplastic fibrous product. Philip Goldstein and Harold R. Gillette, assignors to Federal Electric Co., Inc., Chicago, Ill. Filed June 7, 1943. 6 claims. (Cl. 92-3). This is the product covered by the preceding patent.

2,376,697. Bag making machine. Ross C. Hurrey, assignor to Bagpak, Inc., New York, N. Y. Filed July 25, 1940. 3 claims. (Cl. 93-27).

2,376,790. Closure. Robert B. Le Roy, assignor to Bemis Bro. Bag Company, St. Louis, Mo. Filed Feb. 26, 1944. 6 claims. (Cl. 229-62).

2,376,839. Method and apparatus for producing collapsible paperboard bodies for tubular containers. Harry A. Wansker, Newtonville, Mass. Filed Oct. 22, 1941. 13 claims. (Cl. 93-36). Cylindrical collapsible bodies for tubular knockdown containers for ice cream.

2,376,854. Cements. Seymour G. Saunders, Bloomfield Hills, and Harry Morrison, Detroit, Mich. Filed Nov. 18, 1942. 17 claims. (Cl. 154-43). A synthetic rubber and a thermosetting synthetic resin with a volatile organic solvent for the resin.

May 29, 1945

2,376,879. Rewinding machine. Robinson E. Matthews and Floyd F. Hensley, assignors to Ecusta Paper Corporation, Pisgah Forest, N. C. Filed Feb. 17, 1942. 5 claims. (Cl. 242-55). Apparatus for rewinding continuous web material and simultaneous inspection of the same.

2,376,904. Paper container. Fletcher R. Cookston, Los Angeles, Calif. Filed Feb. 1, 1944. 1 claim. (Cl. 229-72).

2,376,915. Apparatus for the longitudinal creping webs of paper or other sheet material. Rudolf Haas; vested in the Alien Property Custodian. Filed Dec. 31, 1940. 11 claims. (Cl. 154-30).

2,377,005. Automatic bottom bag and method of making same. Alfred B. Haslacher, New York, N. Y. Filed July 17, 1942. 9 claims. (Cl. 229-60).

2,377,103. Method of fabricating containers. Walter F. Pittman, assignor to The American Paper Bottle Company, Toledo, Ohio. Filed Nov. 23, 1942. 3 claims. (Cl. 93-36.8).

2,377,125. Shipping box. John E. Borah and Judith M. Borah, Osceola, Ind. Filed July 11, 1941. 1 claim. (Cl. 229-31).

2,377,171. Process of bleaching pulp. Harold R. Murdock and Walter P. Lawrence, assignors to The Champion Paper and Fibre Company, Canton, N. C. Filed Sept. 28, 1940. 9 claims. (Cl. 8-105). Kraft pulp is subjected to a multi-stage bleaching operation, the water is removed to a condition of at least 70% airdry, the pulp is disintegrated in water, and further bleached with a chlorite and an activator therefor.

2,377,230. Carton-blank handling apparatus for wire-stitching machines. George H. Harred, assignor to Boston Wire Stitcher Company, Portland, Maine. Filed Dec. 11, 1942. 15 claims. (Cl. 1-11).

2,377,282. Manufacture of sulphite pulp. George H. Tomlinson, Westmount, Quebec, Canada. Filed Aug. 14, 1940. 7 claims. (Cl. 23-262). Apparatus for recovering chemicals and heat from sulphite waste liquor.

2,377,295. Combined paper feeding and gumming machine for labels and the like. Frank G. Cook, assignor to Alexander Dittler, De Kalb County, Ga. Filed Dec. 22, 1941. 10 claims. (Cl. 271-10).

2,377,298. Former device for making paper pulp containers. Raymond E. MacDonald, Westwood, Mass., assignor of one half to Edwin M. Warwick. Filed March 6, 1943. 11 claims. (Cl. 92-57).

June 5, 1945

2,377,358. Container and method of forming the same. George A. Moore, assignor to Shellmar Products Company, Mount Vernon, Ohio. Filed Aug. 4, 1941. 6 claims. (Cl. 229-3.1).

2,377,359. Manufacture of antioxygenic paper. Sidney Musher, assignor to Musher Foundation Incorporated, New York, N. Y. Filed Aug. 5, 1940. 6 claims. (Cl. 92-21). Pulp at a pH 4 to 6.9 is treated with less than 1% of an aromatic compound (hydroquinone, guaiacol, phloroglucinol, resorcinol, pyrogallol, pyrocatechol, tributylcatechol, or vanillin) and then heated to at least 210° F. to form the antioxygenic paper.

2,377,392. Sheet pulp container forming apparatus. Lee M. Wiley, Marion, Ind., assignor of one third to Julian T. Lett and one third to Reeley B. Wiley. Filed May 27, 1942. 6 claims. (Cl. 18-4). A mechanism for transferring successively presented articles.

2,377,393. Method of forming plastic coated containers. Lee M. Wiley, Marion, Ind., assignor of one third to Reeley B. Wiley and one third to Julian T. Lett. Filed Oct. 15, 1942. 1 claim. (Cl. 18-59).

2,377,471. Container. Marshall I. Williamson, assignor to National Folding Box Company, New Haven, Conn. Filed June 26, 1941. 10 claims. (Cl. 229-17).

2,377,472. Carton or container. Ralph M. Glover, assignor to Box Blank Corporation, New York, N. Y. Filed Oct. 2, 1941. 15 claims. (Cl. 229-17).

2,377,520. Bottle carrier. Joseph Robinson, Jr., and Mark L. Seibert, assignors to Marsh Wall Products, Incorporated, Dover, Ohio. Filed March 9, 1944. 2 claims. (Cl. 229-52).

2,377,524. Method of and means for separating solid particles in pulp suspensions and the like. Edward W. Samson and Alfred H. Croup, assignors to Hammermill Paper Company, Erie, Pa. Filed Nov. 21, 1939. 20 claims. (Cl. 92-28). A centrifugal separating chamber.

2,377,532. Method of fabricating collapsible tubes. Harry F. Waters, New York, N. Y. Filed July 30, 1942. 1 claim. (Cl. 93-55.1). The tubes are made of reverted cellulose.

2,377,533. Container. Harry F. Waters, New York, N. Y. Filed July 16, 1943. 4 claims. (Cl. 229-16). Container for foodstuffs, including milk.

2,377,599. Die. Kenneth R. Allen, assignor to American Seal-Kap Corporation of Delaware, Wilmington, Del. Filed May 29, 1943. 4 claims.

(Cl. 18-35). A die for forming paper caps or the like.

2,377,602. Carton. Perry Belden, assignor to National Union Radio Corporation, Newark, N. J. Filed Aug. 30, 1943. 9 claims. (Cl. 206-46).

2,377,603. Carton. Perry Belden, assignor to National Union Radio Corporation, Newark, N. J. Filed Oct. 26, 1943. 7 claims. (Cl. 206-46).

2,377,604. Carton. Perry Belden, assignor to National Union Radio Corporation, Newark, N. J. Filed June 1, 1944. 4 claims. (Cl. 206-46).

2,377,647. Adhesive material. Emile Pragoff, Jr., assignor to Hercules Powder Company, Wilmington, Del. Filed June 8, 1942. 10 claims. (Cl. 260-755). The adhesive contains rubber, dehydrogenated rosin, lanolin, and zinc oxide.

2,377,721. Separator of the vortex type for paper pulp. Harold E. B. Scott, assignor to Vickerys Limited, London, England. Filed June 30, 1942. 20 claims. (Cl. 92-28).

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2,377,864. Pulp molding and reforming. Merle P. Chaplin, assignor to Chaplin Corporation, South Portland, Maine. Filed Feb. 8, 1941. 20 claims. (Cl. 92-56).

2,377,897. Razor blade envelope. Georges Monnet, assignor to Guardian Merchandising Corporation, Montreal, Quebec, Canada. Filed Aug. 28, 1941. 1 claim. (Cl. 206-46).

2,377,915. Quick opening and sealing envelope. Benjamin M. Aldrich, Stillwater, Okla. Filed Sept. 16, 1943. 4 claims. (Cl. 229-77).

2,377,971. Means for use in splicing webs. Oscar C. Roesen, assignor to Wood Newspaper Machinery Corporation, Plainfield, N. J. Filed Dec. 15, 1943. 5 claims. (Cl. 242-58). Means for splicing newspaper webs.

2,378,025. Coating apparatus. Romie L. Melton and Almer J. Thompson, assignors to The Carborundum Company, Niagara Falls, N. Y. Filed May 9, 1942. 16 claims. (Cl. 91-18). Apparatus for manufacture of abrasive webs.

2,378,026. Bottle carrier. Earl E. Morgan, La Fayette, Ind. Filed July 24, 1944. 4 claims. (Cl. 294-87).

2,378,027. Strip shingle. Joseph A. Murray, Bethesda, Md. Filed Sept. 14, 1942. 1 claim. (Cl. 108-7).

2,378,113. Paper manufacture. Charles R. Van de Carr, Jr., assignor to K-C-M Company, Dayton, Ohio. Filed March 21, 1938. 4 claims. (Cl. 92-40). Method of manufacturing a mineral-surfaced paper web.

2,378,180. Apparatus for formation and packing of containers. William F. Brown, Flushing, N. Y. Filed Feb. 28, 1942. 17 claims. (Cl. 113-1).

2,378,193. Paper and method of manufacturing same. Arthur B. Cummins and Carlton J. O'Neil, assignors to Johns-Manville Corporation, New York, N. Y. Filed Nov. 14, 1941. 4 claims. (Cl. 92-21). A suspension of pulp and 1 to 5% of titanium dioxide is treated with 1 to 10% of the weight of the fibrous material of finely divided diatomaceous earth.

2,378,285. Bag valve. Theron A. Contryman, assignor to St. Regis Paper Company, New York, N. Y. Filed Sept. 21, 1938. 4 claims. (Cl. 229-62.5).

2,378,340. Container handle. Raymond H. Van Saun, assignor to Container Corporation of America, Chicago, Ill. Filed July 23, 1943. 5 claims. (Cl. 229-52).

2,378,359. Preparation of fatty acids. Alfred G. Houpt, assignor to American Cyanamid Company, New York, N. Y. Filed May 8, 1942. 4 claims. (Cl. 260-97.5). A method of separating the fatty acids from tall oil.

JUNE 19, 1945

2,378,378. Amylaceous adhesive composition. Hans F. Bauer, assignor to Stein, Hall & Co., Inc., New York, N. Y. Filed Sept. 20, 1940. 17 claims. (Cl. 106-205). A starch-urea mixture is stabilized by an acid.

2,378,386. Method of making abrasive articles. Richard A. Baumgartner, assignor to The Carborundum Company, Niagara Falls, N. Y. Filed June 28, 1944. 6 claims. (Cl. 51-297).

2,378,457. Mechanism for closing the open tubular end of the wrapper of a package. Charles Arelt, assignor to American Machine & Foundry Company, New York, N. Y. Filed June 17, 1943. 13 claims. (Cl. 93-6).

2,378,470. Container and method of sealing same. Pasquale V. di Cosmo, assignor to The Canister Company, Phillipsburg, N. J. Filed Dec. 3, 1942. 1 claim. (Cl. 229-5.5).

2,378,477. Moldable fiber composition. Albert J. Hanley, assignor to Bakelite Corporation, New York, N. Y., and Respro Inc., Cranston, R. I. Filed July 9, 1940. 7 claims. (Cl. 260-9). A product formed from a wadding of positioned overlapping fibrous elements and a binder of resin.

2,378,479. Sheet material. William A. Hoffman and Richard S. Schreiber, assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. Filed Aug. 22, 1942. 10 claims. (Cl. 117-144). Regenerated cellulose containing a water-soluble organic sulfoxidate.

2,378,503. Sewed double side seam bag. Howard A. Robdin, Glen Ridge, N. J. Filed Dec. 7, 1942. 11 claims. (Cl. 229-62).

2,378,552. Flotation process. Edward H. Hoag, Los Angeles, Calif. Filed March 3, 1943. 5 claims. (Cl. 209-167). The flotation reagent contains tall oil.

2,378,554. Power saw for felling and cutting pulpwood. John Irwin, Jr., New York, N. Y. Filed Dec. 31, 1943. 3 claims. (Cl. 143-43).

2,378,585. Safety paper. Adolf Schroth; vested in the Alien Property Custodian. Filed Dec. 15, 1937. 6 claims. (Cl. 92-21). A safety paper contains a reducible salt (mercury tungstate, barium tellurite, or barium selenite) and ammonium-iron-cyano-tungstate or -molybdate.

2,378,627. Egg packing material. Jesse R. Grant, Chicago, Ill. Filed May 23, 1942. 6 claims. (Cl. 217-26.5).

2,378,714. Fireproofing compositions. Martin Leatherman, Hyattsville, Md. Filed May 28, 1942. 8 claims. (Cl. 106-15). A fireproofing composition consists of a thermally unstable chlorinated resinous organic material, zinc carbonate, monocalcium chlorophosphate, a wetting agent, a dispersion medium, and a plasticizer.

2,378,715. Fireproofing compositions. Martin Leatherman, Hyattsville, Md. Filed May 28, 1942. 2 claims. (Cl. 106-15). A fireproofing composition contains zinc carbonate, a thermally unstable chlorinated organic material, monocalcium chlorophosphate, a flameproofing accelerator, a dispersion medium, and a wetting agent.

2,378,750. Paper container. Herman Carew, assignor to Dixie Cup Company, Chicago, Ill. Filed July 30, 1940. 4 claims. (Cl. 229-1.5). A handle for a paper drinking cup.

2,378,764. Device for the generation of pressure in presses. Reinhold Frick, assignor to American Voith Contact Co. Inc., New York, N. Y. Filed May 7, 1941. 3 claims. (Cl. 92-49). A device for the generation of pressure in roller presses of paper and cellulose dewatering machines.

2,378,796. Tray former for wrapping machines. Oscar Sandberg, assignor to Lynch Manufacturing Corporation, Defiance, Ohio. Filed Oct. 12, 1942. 18 claims. (Cl. 93-51).

2,378,878. Container and method of forming the same. Allen B. Wilson, assignor to Acme Steel Company, Chicago, Ill. Filed May 5, 1941. 10 claims. (Cl. 93-39.1).

JUNE 26, 1945

2,378,920. Packaging rosin. Charles C. Gillican, assignor of one half to Nelio Resin Processing Corporation, Cleveland, Ohio, and one half to Filtered Rosin Products, Inc., Benediet, Ga. Filed July 22, 1938. 2 claims. (Cl. 226-47). A container suitable for hot liquid rosin and the method of filling such container.

2,378,932. Package for furniture. John S. Kirby, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio. Filed Dec. 12, 1941. 5 claims. (Cl. 206-46).

2,378,972. Process of producing grease packages. Harry L. Bode, assignor to Gaylord Container Corporation, St. Louis, Mo. Filed May 4, 1942. 6 claims. (Cl. 226-19). The inner surface of the container is coated with a wax-in-water emulsion containing graphite in suspension.

2,379,038. Carton and carton blank. Arthur Rous, New York, N. Y. Filed April 7, 1944. 4 claims. (Cl. 229-17).

2,379,043. Container. Arthur F. Stagmeier, assignor to General Foods Corporation, New York, N. Y. Filed Dec. 21, 1942. 4 claims. (Cl. 229-3.1). A cardboard container adapted for vacuum packing.

2,379,065. Gelatinous material. Edward F. Christopher, assignor to Industrial Patents Corporation, Chicago, Ill. Filed July 16, 1942. 10 claims. (Cl. 106-125). The viscosity of glue or gelatin is increased by the addition of deacetylated chitin.

2,379,087. Bag handle attaching machine. Morris Katz, Bronx, N. Y. Filed Nov. 3, 1941. 7 claims. (Cl. 93-1).

2,379,127. Box creasing and folding machine. Arthur W. Werner, Milwaukee, Wis. Filed March 6, 1942. 15 claims. (Cl. 93-49).

2,379,163. Producing molded products. Kenneth L. Landon, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa. Filed July 24, 1943. 6 claims. (Cl. 18-47.5). A method of molding fibrous material and a heat-curable resinous binder.

2,379,171. Paper-cutting machine. Frederick D. McLaughlin, assignor to The Chandler & Price Company, Cleveland, Ohio. Filed Nov. 5, 1943. 8 claims. (Cl. 164-53).

2,379,216. Box gluing device. Christian Christiansen, Swampscott, Mass. Filed April 23, 1943. 8 claims. (Cl. 91-30). Device for applying glue to the flap of a box blank.

2,379,361. Sealing machine and the like. Leon E. La Bombard, assignor to The International Paper Box Machine Company, Nashua, N. H. Filed Sept. 10, 1942. 17 claims. (Cl. 154-42). A machine for heat sealing the walls of receptacle blanks.

Link-Belt Announces Promotions

Edward J. Burnell, vice-president, Link-Belt Company, Chicago, announces the appointment of A. C. Fellinger to the position of sales manager, power transmission machinery, with headquarters at the company's Ewart plant in Indianapolis. This change is made to fill the vacancy caused by the untimely death of C. Walter Spalding. Mr. Fellinger joined the Link-Belt organization at Indianapolis in 1916. His last position was manager of sales through distributors, with headquarters in Chicago.

The sale and application of Link-Belt silent chain drives will hereafter be headed by H. F. R. Weber, divisional sales manager, silent chain drives, with headquarters at the Ewart plant in Indianapolis. Mr. Weber started his Link-Belt career at Philadelphia plant in 1915 as a power transmission engineer, and last held the position of central division manager for power transmission machinery, with headquarters in Chicago.

G. H. Woody continues as sales manager of the ball and roller bearing division, with headquarters at the company's ball and roller bearing plant in Indianapolis. Sales through Link-Belt distributors will be supervised by F. A. Hurd, divisional sales manager, industrial distributor sales, Chicago; G. H. Unruh, divisional sales manager, industrial distributor sales, Philadelphia; and Harry Reisser, divisional sales manager, automotive equipment sales, Indianapolis.

Advanced by Monsanto

ST. LOUIS, Mo., July 27, 1945—Robinson Ord, of St. Louis, has been appointed general manager of sales of the Organic Division of Monsanto Chemical Company, it was announced today by Osborn Bezanson, vice-president and general manager of the Organic Division. Ord, formerly an assistant general manager of sales, succeeds Fred C. Renner who died on June 26.

Other promotions announced at the same time include Arthur P. Kroeger, of St. Louis, who has been appointed an assistant general manager of Organic Division Sales and Charles H. Sommer, Jr., of St. Louis who will assume responsibility for sales of intermediates as well as plasticizers and resins.

PAPER MILL OPERATORS

ARE YOU INTERESTED IN—

Controlled particle size and settling rates for lime, by method of reburning and slaking?

Write us making appointment to have a talk with our engineer.

TRAYLOR
ENGINEERING & MANUFACTURING CO.
MAIN OFFICE AND WORKS — ALLENTOWN, PENNA., U.S.A.

THIS IS A SIMPLE KNOT

If this bowline looks complicated, consider the case of a paper mill felt . . . for weaving is actually a higher form of knot tying. There the problem *really* becomes an art. . In fact, so many different weaves are available . . . each designed to do a specific job . . . that choosing the correct felt is far from simple.

Why not, therefore, let a man who has specialized in felt clothing help you? Call in an Orr representative for his suggestions . . . without obligation, of course. THE ORR FELT & BLANKET CO., Piqua, Ohio.

ORR FELTS

New York Paper and Pulp Market Review

Paper Supply Situation Prospect Appears Favorable For Gradual Increase In Future—Future Swedish Pulp Output Dependent Upon Coal Supply — Mill Needs For More Waste Paper Is Urgent.

Office of the PAPER TRADE JOURNAL,
Wednesday, August 1, 1945.

Some easement in the tight supply of paper for civilian consumption has been effected through amendments of limitation orders already announced and which are expected to continue as the reconversion from a military to a civilian economy slowly proceeds. As production in the future is expected to be continued at a high rate, the supply situation of paper in the future is largely complicated by the tonnage which the Foreign Economic Administration and other agencies for the relief in Europe, may decide essential for such consumption. The almost destitute situation of western European countries may require more tonnage of paper than had been previously contemplated. The report of Arthur Bevan, chief of the Paper, Lumber and Container section of the FEA, concludes that, with the exception of Germany, there has been an almost complete breakdown of the paper and pulp industry in western Europe. Sweden is the only dependable source of supply for pulp and Sweden is having difficulty. The current problem is an adequate supply of coal.

The index of general business activity for the week ended July 21 rose to 139.3, from 136.7 in the preceding week, compared with 144.4 in the corresponding week in 1944. The index of paperboard production was 154.0, compared with 160.9 in the preceding week, and with 149.8 in the corresponding week in 1944.

Paper production for the week ended July 21 was estimated at 87.2%, compared with 91.2% for 1944, with 90.1% for 1943, with 79.2% for 1942, and with 101.9% for the corresponding week in 1941.

Paperboard production for the week ended July 21 was 93.%, compared with 94.0% for 1944, with 97.0% for 1943, with 74.0% for 1942, and with 92.0% for the corresponding week in 1941.

Consumers of newsprint were directed by the WPB on July 30 to reduce by 5% their orders placed with mills for August delivery, except when August deliveries would be less than one carload.

Wood Pulp

The supply situation in domestic wood pulp has improved with the sharp increase in pulpwood receipts and inventories in June. Total pulpwood receipts in June rose to 1,593,000 cords, compared with 1,461,000 cords in May. Consumption declined to 1,471,000 cords, compared with 1,518,000 cords in May. Inventories at the end of June aggregated 2,420,000 cords, compared with 2,330,000 cords in May.

Imports of wood pulp from Sweden totaled 9,464 short tons in the week ended June 20. With the improvement in the outlook for wood pulp, some quarters expect the provisions in L-120, relative to the basis weights of paper, may be revoked.

Rags

Mill demand for cotton cuttings has been active for months to maintain a strong market in the higher grades. The relatively limited supply situation has slowly increased the firmness of the market. Demand in excess of supply has now created a very strong market in cuttings. Prices are strong at ceiling levels.

Buying of old cotton rags continues steady at this date. Old whites and blues are active. Somewhat less volume is reported in current buying by roofing felt mills. Prices are firm at ceiling levels.

Old Rope and Bagging

No change in prices or market conditions has been reported in old rope this week.

Signs of improved activity in old bagging appear from current reports to have vanished. Current opinion indicates the market in scrap bagging is relatively slow. Demand for gunny, however, is moderately active at this date. Some dealers report paying 2.75 for gunny and mill run bagging.

Old Waste Paper

Mills are widely reported to require more waste paper than is now being received. With the prospect of a relatively gradual increase in wood pulp supplies, mill needs for waste paper are expected to continue active for the remainder of the year. Demand for paperboard is expected to continue very heavy and no change in the active market for waste paper is looked for this year.

Twine

No change in the twine market has been reported at this date. At the recent meeting of the cordage industry, June production of sisal rope is reported to have represented 100% of the total permitted monthly consumption of sisal fiber under M-84.

Favors Dropping Fiber Box Control

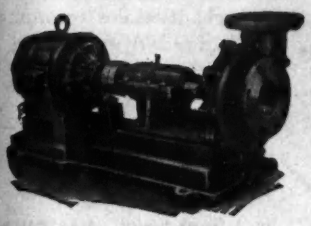
[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., August 1, 1945—Removal of control over manufacture, delivery and use of fiber shipping containers, and the discontinuance of preference ratings affecting this type of container, except for military use, were recommended at a recent joint meeting of the Containerboard and Fiber Box Industry Advisory Committees, the War Production Board reported today.

This would involve the revocation of the fiber box limitation order (L-317), except for its inventory restrictions, and the revocation of the fiber shipping container preference rating order (P-146), which assigns AA ratings for specific purposes, with the retention of MM ratings for military use, officials of the Paperboard Division pointed out. Industry members urged immediate WPB consideration of these revocations in the belief that the controls would not be needed in the fourth quarter of 1945.

Another recommendation of the industry members present was that control over the use, receipt, delivery and inventory of containerboard under the paperboard conservation order (M-290) be retained until it was certain that its revocation would not reduce the production of this type of board.

WHEN YOU THINK OF PUMPS
. . . THINK OF FREDERICK



Our engineering department is interested . . . right now . . . in your post war pumping requirements. Let us help you plan . . . supply us with this information—

1—Under what conditions must your pumps work?

2—What kind of work must your pumps do?

The above data will enable us to adapt our basic design to your specific needs. It will pay you to confer with Frederick pump specialists . . . consultation always available—and there is no obligation.

REMEMBER—There is no Frederick *stock* pump. Our engineering department builds the pump to perform the work you have to do . . . and guarantees it to do the job for which it is sold.

THE Frederick IRON & STEEL CO.
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"OVER 25 YEARS' EXPERIENCE MAKING FINE PUMPS"

CLAFLIN REFINER

CONTINUOUS BEATING: Three No. 2 Claflins in series. Furnish of Southern Bleached Kraft — 50 tons/day. Pulping operation—through three Claflins—to beaters used only for mixing—to Jordans for final cutting control to paper machine. Total of 540 h.p. on Claflins. Freeness drop from 685 c.c. to 310 c.c.

BATCH BEATING: No. 2 Claflin — Furnish of Southern Bleached Kraft—2,000# batch. Stock pumped from chest into Claflin to another chest. At end of 15 minutes and two passes, Freeness 548, a drop of 72 c.c. At end of 30 minutes, after 4 passes, Freeness 476, drop of 144 c.c. At end of 45 minutes and 6 passes, Freeness 400, drop of 220 c.c. Mullen 72%—548 c.c., 102%—476 c.c. and 145%—400 c.c.

Adaptable also for brushing out fibre bundles and lumps with minimum degree of cutting and reduction of Freeness. (Tissues).

LARGER CAPACITY NO. 3 SOON AVAILABLE

THE HERMANN MFG. COMPANY
LANCASTER, OHIO

Steel Banded for Multiple Handling

Whether you ship by case, crate, carton, bale or reel—and whether your shipment travels by land, sea or air—the Stanley Steel Strapping System will give your containers a double assurance of safe arrival. This time-tested system includes tools, reels and accessories for every application where maximum protection for minimum weight is required. The Stanley Works, Steel Strapping Division, New Britain, Connecticut.

STANLEY

STEEL STRAPPING AND CAR BANDING SYSTEMS

MEET ALL FEDERAL STRAPPING SPECIFICATIONS

MISCELLANEOUS MARKETS

Office of the PAPER TRADE JOURNAL,
Wednesday, August 1, 1945.

BLANC FIXE—The market for blanc fixe is reported unchanged for the week. Current demand is reported fair. The pulp is currently quoted at $40 per ton, in barrels, at works; the powder is currently quoted at $60 per ton.

BLEACHING POWDER—Demand is currently reported active. Supply situation reported satisfactory. Bleaching powder is currently quoted at from $2.50 to $3.10 per 100 pounds. All prices in car lots, in drums, f.o.b. works. May output higher at 2,708,000 pounds.

CASEIN—OPA maximum prices on processed acid-precipitated casein are as follows: 10,000 pounds or more, 24 cents per pound; 2,000 pounds, 24¼ cents per pound; less than 2,000 pounds, 24¾ cents per pound, f.o.b. shipping point. Imported, 21 to 23 cents per pound. All requests filled.

CAUSTIC SODA—Supply situation continues tight, with production good and very heavy all-over demand. Combined stocks lower at 55,886 tons. Solid caustic soda is currently quoted at $2.30 per 100 pounds. The flake and ground are currently quoted at $2.70 per 100 pounds. All prices in car lots, in drums, f.o.b. works.

CHINA CLAY—Demand for some grades of china clay is reported fair this week. Domestic filler clay is currently quoted at from $7.50 to $15 per ton; coating clay is quoted at from $12 to $22 per ton, at mines. Imported china clay is currently quoted at from $13 to $25 per long ton, ship side.

CHLORINE—All-over demand heavy. Essential requirements met. May output up at 110,746 tons. Prices unchanged. Chlorine is currently quoted at $1.75 per 100 pounds, in single-unit tank cars, f.o.b. works.

ROSIN—Light offerings at unchanged OPA ceiling prices: "G" gum rosin at $5.79 per 100 pounds, in barrels, Savannah. "FF" wood rosin is currently quoted at $5.75 per 100 pounds in barrels, New York. Average price of 70% gum rosin size is currently offered at $5.95 per 100 pounds, f.o.b. works. Conservation Order M-387 of February 28, limits rosin to 70% of 1944 quota for paper.

SALT CAKE—Demand reported moderate. Quotations on salt cake continue to remain unchanged. Domestic salt cake is currently quoted at $15 per ton; chrome cake at $16 per ton.

SODA ASH—Market requirements for soda ash continue heavy. Production at capacity. May output lower at 206,019 tons. Bulk deliveries prompt; bagged lots slow. Prices continue unchanged. Prices on soda ash in car lots, per 100 pounds, are as follows: in bulk, $.90; in paper bags, $1.05; and in barrels, $1.35.

STARCH—Market supply of cash corn reported light this week. Corn prices firm. Starch quotations continue unchanged. Pearl is currently quoted at $3.72 per 100 pounds. The powdered grade is currently quoted at $3.83 per 100 pounds. All prices f.o.b. Chicago.

SULPHATE OF ALUMINA—Supply situation reported good. Quotations are unchanged. Prices on the commercial grades are quoted at from $1.15 to $1.25 per 100 pounds. The iron free is currently quoted at $1.75 per 100 pounds. All prices in car lots, in bags, f.o.b. works.

SULPHUR—Demand is reported active for sulphur. Quotations on all grades continue unchanged. Annual contracts are currently quoted at $16 per long ton, f.o.b. mines. The current contract prices at Gulf Ports remains unchanged at $17.50 per long ton.

TALC—The market for domestic talc is reported fair this week. Quotations unchanged. Domestic grades are quoted at from $16 to $21 per ton, at mines. Canadian $24 per ton. All prices in car lots.

MARKET QUOTATIONS

All market quotations, excepting those otherwise designated as official OPA maximum prices, are based on the manufacturers' price level as of October 1-15, 1941; maximum wholesale prices are based on the merchants' maximum prices for stipulated quantities at a quoted price to all customers of a like class, as shown by the merchant's sales records of goods delivered during March, 1942. A merchant's price list in effect in March 1942, showing quotations of actual shipments, will establish the current maximum prices.

Paper

(Delivered New York)

Standard News, per ton—			
Roll, contract	*$61.00	@	—
Sheets	69.00	@	—
* OPA Maximum Price.			
Kraft—per cwt.—Carload Quantities Zone A, Delivered			
Superstandard Wrapping	*$5.25	@	—
No. 1 Wrapping	*5.00	"	—
Standard Wrapping	*4.75	"	—
Standard Bag	*4.375	"	—
* OPA Manufacturers' Prices.			
Tissues—Per Ream—Carlots			
White No. 1	1.12½	"	—
White No. 1 M. G.	1.10	"	—
White No. 1½	1.00	"	—
White No. 2	.90	"	—
Anti-Tarnish M.F.	1.20	"	—
Colored	—	"	—
Kraft	.95	"	—
Manila	.90	"	—
Toilet—1 M. Sheets—Per Case			
Unbleached	4.25	"	—
Bleached	5.70	"	—
Unbl. Toilet, 1 M.	4.16	"	—
Bleached Toilet	5.70	"	—
Paper Towels, Per Case—			
Unbleached, Jr.	2.20	"	—
Bleached, Jr.	3.20	"	—
Manila—per cwt.—C. l. f. a.			
No. 1 Jute	11.25	@	—
No. 1 Manila Wrapping, 35 lb.	6.00	"	6.25
No. 2 Manila Wrapping, 35 lb.	5.75	"	6.00
Boards, per ton—			
News	*50.00	@	—
Chip	*50.00	"	—
Sgl. Mls. Ll. Chip	*62.00	"	—
White Pat. Coated	*75.00	"	—
Kraft Liners 50 lb.	*63.00	"	—
Binders Boards	84.00	"	116.00

* OPA Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5.; basis 40-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

The following are representative of distributors' resale prices:

Rag Content Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:

	Bonds	Ledgers
100% Rag Ext. No. 1	$39.10@$46.00	$40.25@$47.25
100% Rag	32.20 " 37.75	33.35 " 39.25
85% Rag	.... "	29.90 " 35.00
75% Rag	23.00 " 27.00	24.15 " 28.25
65% Rag	.... "	22.80 " 27.75
50% Rag	18.70 " 22.75	19.90 " 24.25
25% Rag	16.40 " 20.00	17.55 " 21.50

Colors at $1.00 cwt. extra.

Sulphite Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:

	Bonds	Ledgers
No. 1	$10.55@$12.75	$11.70@$14.25
No. 2	9.65 " 11.75	10.80 " 13.25
No. 3	9.20 " 11.25	10.35 " 12.50
No. 4	8.90 " 10.75	10.05 " 12.25

Colors $1.00 cwt. extra.

Free Sheet Book Papers—White, Cased Paper, Delivered in Zone 1:

No. 1 Glossy Coated	$13.65	@	$15.90
No. 2 Glossy Coated	12.40	"	14.60
No. 3 Glossy Coated	11.60	"	13.85
No. 4 Glossy Coated	11.15	"	12.75
No. 1 Antique (watermarked)	10.25	"	11.75
No. 2 Offset	9.60	"	11.00
A Grade E. F.	9.35	"	10.75
A Grade S. & S. C.	9.60	"	11.00
B Grade E. F.	8.85	"	10.25
B Grade S. C.	9.10	"	10.50
C Grade E. F.	8.55	"	9.75
C Grade S. C.	8.80	"	10.00
D Grade E. F.	8.25	"	9.50
D Grade S. & S. C.	8.50	"	9.75

Ivory & India at $.50 cwt. extra.

Wood Pulp

OPA Maximum Prices and Canadian Manufacturers Prices, Less Freight Not Exceeding OPA Allowances.

Bl. Softwood Sulphite	$86.00
Unbl. Softwood Sulphite	74.00
Bl. Hardwood Sulphite	83.50
Unbl. Hardwood Sulphite	71.50
Bl. Mitscherlich	81.00
Unbl. Mitscherlich	*72.00 @ 82.00
N. Bleached Sulphate	86.00
S. Bleached Sulphate	79.00
N. Semi-Bleached Sulphate	82.00
S. Semi Bleached Sulphate	75.00
N. Unbl. Sulphate	73.00
S. Unbl. Sulphate	63.50
Bl. Soda	76.00
Unbl. Soda	72.00
Groundwood	50.00

Transportation Allowances

Applying to Producers of Wet Wood Pulp.

	Below 50% Air Dry Weight
Northeast	$13.50
Lake Central	13.50
Southern	16.00
West Coast (in area)	10.50
West Coast (out area)	16.50

	50%-80% Air Dry Weight
Northeast	11.50
Lake Central	11.50
Southern	14.00
West Coast (in area)	9.50
West Coast (out area)	15.50

Applying to Producers of Dry Wood Pulp.

	Above 80% Air Dry Weight
Northeast	$8.50
Lake Central	8.50
Southern	11.00
West Coast (in area)	7.50
West Coast (out area)	13.50

Should freight charges actually exceed these allowances, the difference may be added to the maximum prices.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	6.50	@	7.25*
Silesias No. 1	—	"	5.75*
New Unbleached	6.75	"	7.50*
Blue Overall	—	"	5.50*
Fancy	—	"	3.50*
Washables	—	"	3.00*
Bleached Khaki Cuttings	—	"	4.25*
Unbleached Khaki Cuttings	—	"	3.50*

*OPA Maximum Prices

ANY ★SIZE

★ ANY SHAPE

The IDEAL Material for Tanks and Chests

Kalamazoo Vitrified Glazed TILE

★ MAXIMUM STORAGE ★ PROPER AGITATION ★

PERFECT CLEANLINESS

Chests available now with complete Erection Service

KALAMAZOO TANK & SILO CO. Kalamazoo Michigan

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230 Park Ave. New York

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503 Market St. San Francisco, Cal.

Manufacturers of

ENGLISH FINISH BOOK
SUPERCALENDERED BOOK
and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Mimeograph, Ledger, Eggshell, Cover and Music Papers, Index Bristol, Post Card and Label Papers, Machine Coated

HIGH GRADE COATED BOOK

• • • •

KRAFT WRAPPING AND KRAFT ENVELOPE
KRAFT LINER BOARD
BLEACHED SULPHITE AND SODA PULP
BLEACHED AND UNBLEACHED KRAFT PULP

MILLS:

Mechanicville, New York
Luke, Maryland
Covington, Virginia
Tyrone, Pennsylvania
Williamsburg, Pennsylvania
Charleston, South Carolina

SEABOARD'S Six

SIX GREAT STATES

Let us outline the advantages of Seaboard's six great states of opportunity.

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SEABOARD AIR LINE RAILWAY

DALLAS T. DAILY, GENERAL INDUSTRIAL AGENT, SEABOARD AIR LINE RAILWAY, NORFOLK 10, VIRGINIA

Old Rags

White, No. 1—			
Repacked	*3.80	"	—
Miscellaneous	*3.20	"	—
White, No. 2—			
Repacked	*2.90	"	—
Miscellaneous	*2.65	"	—
Thirds and Blues—			
Repacked	*2.20	"	—
Miscellaneous	*1.30	"	—
Roofing Rags—			
No. 1	*1.55	"	—
No. 2	*1.45	"	—
No. 3 (bagging)	*1.35	"	—
No. 4	*1.35	"	—
No. 5A	*1.35	"	—
Old Manila Rope	5.75	"	—

* OPA Maximum Prices.

Foreign Rags

Pre-War Quotations

All Prices Nominal

New Rags

New Dark Cuttings	2.25	@	2.40
New Mixed Cuttings	2.00	"	2.20
New Light Silesias	5.50	"	5.75
Light Flannelettes	5.50	"	5.75
New White Cuttings	7.00	"	7.50
New Light Oxfords	4.00	"	4.50
New Light Prints	3.00	"	3.25

Old Rags

No. 1 White Linens	7.50	"	8.50
No. 2 White Linens	6.50	"	7.50
No. 3 White Linens	4.50	"	—
No. 4 White Linens	2.25	"	3.25
No. 1 White Cotton	4.25	"	4.75
No. 2 White Cotton	3.25	"	3.75
No. 3 White Cotton	2.50	"	3.00
No. 4 White Cotton	1.90	"	2.20
Extra Light Prints	2.00	"	2.40
Ord. Light Prints	1.75	"	2.15
Med. Light Prints	1.55	"	1.95
Dutch Blue Cottons	2.25	"	2.50
French Blue Linens	3.00	"	—
Checks and Blues	2.00	"	—
Linsey Garments	1.90	"	2.00
Dark Cottons	1.50	"	1.60
Old Shopperies	1.30	"	1.45
New Shopperies	1.45	"	1.50
French Blues	2.25	"	2.50

BAGGING

(Prices to Mill, f. o. b. N. Y.)

Gunny No. 1—			
Foreign	Nominal		
Domestic	3.25	@	3.30
Wool Tares, light	3.25	"	3.50
Wool Tares, heavy	3.50	"	3.75
Bright Bagging	3.25	"	3.50
Manila Rope—			
Foreign	—	"	—
Domestic	*5.75	"	—
Jute Threads	5.50	"	—
No. 1 Sisal Strings	*4.00	"	—
Mixed Strings	2.00	"	—

* OPA Maximum Prices.

Old Waste Papers

(F. o. b. New York)

OPA Maximum Prices, Baled

No. 1 Hard White Envelope Cuts, one cut	3.37½	@	—
No. 1 Hard White Envelope Cuts	3.12½	"	—
No. 1 Hard White Shavings, unruled	2.87½	"	—
No. 1 Hard White Shavings, ruled	2.50	"	—
Soft White Shavings, one cut	2.87½	"	—
No. 1 Soft White Shavings	2.50	"	—
Soft White Shavings, Misc.	2.15	"	—
No. 1 Fly Leaf Shavings	1.67½	"	—
No. 2 Fly Leaf Shavings	1.12½	"	—
No. 1 Groundwood Fly Leaf Shavings	1.25	"	—
No. 2 Mixed Groundwood Fly Leaf Shavings	.90	"	—
Mixed Colored Shavings	.75	"	—
Mixed Groundwood Colored Shavings	.90	"	—
Overissue Magazines	1.67½	"	—
No. 1 Heavy Books & Magazines	1.92½	"	—
Mixed Books	1.10	"	—
No. 1 White Ledger	2.30	"	—
No. 2 Mixed Ledger, colored	2.00	"	—
New Manila Envelope Cuttings, one cut	2.87½	"	—
New Manila Envelope Cuttings	2.65	"	—
Extra Manilas	1.95	"	—
Mixed Kraft, Env. & Bag Cuttings	2.75	"	—
Kraft Envelope Cuttings	3.25	"	—
Triple Sorted, No. 1 Brown Soft Kraft	2.50	"	—
New 100% Kraft Corrugated Cuttings	2.25	"	—
No. 1 Assorted Old Kraft	1.75	"	—
New Jute Corrugated Cuttings	.90	"	—
Old 100% Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	1.40	"	—
Box Board Cuttings	.72½	"	—
White Blank News	1.65	"	—
Overissue News	1.10	"	—
No. 1 News	1.00	"	—
No. 1 Mixed Paper	.95	"	—
Old Corrugated Containers	.82½	"	—
Mill Wrappers	1.10	"	—

Twines

All Prices Nominal

(F. o. b. Mill)

(Soft Fiber)

Coarse Polished—			
India	.21	@	—
White Hemp	.21	"	—
Fine Polished—			
Fine India	.26	"	—
Unpolished—			
Box	.17¼	"	—
Paper Makers	.17	"	—
Tube Rope	.19	"	—
Wall Paper	.20½	"	—
Wrapping	.23	"	—
Soft Fiber Rope	.19	"	—
Cotton	.25	"	—

(Hard Fiber)

Medium Java	.18	"	—
Mex. Sisal	.16	"	—
Manila	—	"	—

PHILADELPHIA

Domestic Rags (New)

(Price to Mill)

Shirt Cuttings—	
New White No. 1	.07¼
New White No. 2	.05¾
Light Silesias	.05¾
Black Silesias, soft	.03¾
New Unbleached	.07½
Washable Prints	.04¼
Washable No. 1	.03
Blue Overall	.05½
Cottons—According to grades—	
Washable Shredding	.01¾
Fancy Percales	.04¾
New Black Soft	.03¼
Khaki Cuttings—	
Unbleachable Cotton Cuttings	.03½
Bleachable Cotton Cuttings	.04¼
Men's Corduroy	.03½
Ladies' Corduroy	.03
Cottonades	.03¼

Domestic Rags (Old)

White No. 1—Repacked	3.80	@	—
Miscellaneous No. 1	3.20	"	—
Miscellaneous No. 2	2.65	"	—
White No. 2—Repacked	2.90	"	—
Thirds and Blues—			
Miscellaneous	1.80	"	—
Repacked	2.20	"	—
Black Stockings—			
(Export)	Nominal		
Roofing Stock—			
Foreign No. 1	Nominal		
Domestic No. 1	1.55	"	—
Domestic No. 2	1.45	"	—
Roofing Bagging	1.35	"	—
Old Manila Rope	5.75	"	—

Bagging

(F. o. b. Phila.)

Gunny No. 1—			
Foreign	Nominal		
Domestic	3.00	@	3.50
No. 1 Clean bright—			
Sisal Strings	.04	"	—
No. 2 Clean bright—			
Sisal Strings	.03	"	—
Sisal Jute	.02½	"	.02¾
Scrap—			
No. 1	3.25	"	3.50
No. 2	1.75	"	1.80
Wool Tares, heavy	4.00	"	4.25
No. 1 New Light Burlap	3.00	"	4.00
New Burlap Cuttings	3.75	"	4.00

Old Papers

(F. o. b. Phila.)

OPA Maximum Prices, Baled

No. 1 Hard White Envelope Cuts, one cut	3.37½	"	—
No. 1 Hard White Shavings, unruled	2.87½	"	—
Soft White Shavings, one cut	2.50	"	—
White Blank News	1.65	"	—
Soft White Shavings, Misc.	2.15	"	—
No. 1 Fly Leaf Shavings	1.67½	"	—
No. 2 Fly Leaf Shavings	1.12½	"	—
No. 1 Groundwood Fly Leaf Shavings	1.25	"	—
No. 2 Groundwood Fly Leaf Shavings	.90	"	—
Mixed Colored Shavings	.75	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
Hard White Envelope Cuts, one cut	3.37½	"	—
Triple Sorted No. 1 Brown Soft Kraft	2.50	"	—
Mixed Kraft Env. & Bag Cuttings	2.75	"	—
Kraft Envelope Cuttings	3.25	"	—
No. 1 Heavy Books & Magazines	1.92½	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
New Manila Envelope Cuttings	2.65	"	—
White and Colored Tabulating Cards	2.25	"	—
Ground Wood Tabulating Cards	1.35	"	—
White Blank News	1.65	"	—
No. 1 Assorted Old Kraft	1.75	"	—
No. 1 Mixed Paper	.95	"	—
Overissue News	1.10	"	—
Box Board Cuttings	.72½	"	—
New Corrugated Cuttings, Kraft	2.25	"	—
Old 100% Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	1.40	"	—
Jute Corrugated Cuttings	1.07½	"	—

Bagging

(F. o. b. Boston)

Gunny Bagging—			
Foreign	(nominal)		
Domestic	2.75	@	2.90
Sisal Rope No. 1	*4.75	"	—
Sisal Rope No. 2	* —	"	4.00
Mixed Rope	—	"	1.55
Transmission Rope—			
Foreign	(nominal)		
Domestic	2.75	"	3.00
Manila Rope—			
Foreign	(nominal)		
Domestic	5.75	"	—
Soft Jute Rope	4.50	"	5.00
Jute Carpet Threads	3.00	"	3.50
Bleachery Burlap	8.50	"	9.00
Scrap Burlap—			
Foreign	(nominal)		
Domestic	3.00	"	3.25
South American	—	"	3.25

BOSTON

Old Papers

(F. o. b. Boston)

OPA Maximum Prices, Baled

No. 1 Hard White Shavings, unruled	2.87½	@	—
No. 1 Hard White Shavings, ruled	2.50	"	—
Soft White Shavings, Misc.	2.15	"	—
No. 1 Fly Leaf Shavings	1.67½	"	—
No. 2 Fly Leaf Shavings	1.12½	"	—
No. 1 Groundwood Fly Leaf Shavings	1.25	"	—
No. 2 Groundwood Fly Leaf Shavings	.90	"	—
Mixed Colored Shavings	.75	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
Hard White Envelope Cuts, one cut	3.37½	"	—
Triple Sorted No. 1 Brown Soft Kraft	2.50	"	—
Mixed Kraft Env. & Bag Cuttings	2.75	"	—
Kraft Envelope Cuttings	3.25	"	—
No. 1 Heavy Books & Magazines	1.92½	"	—
New Manila Envelope Cuts, one cut	2.87½	"	—
New Manila Envelope Cuttings	2.65	"	—
White and Colored Tabulating Cards	2.25	"	—
Ground Wood Tabulating Cards	1.35	"	—
White Blank News	1.65	"	—
No. 1 Assorted Old Kraft	1.75	"	—
No. 1 Mixed Paper	.95	"	—
Overissue News	1.10	"	—
Box Board Cuttings	.72½	"	—
New Corrugated Cuttings, Kraft	2.25	"	—
Old 100% Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	1.40	"	—
Jute Corrugated Cuttings	1.07½	"	—

Bagging

(F. o. b. Boston)

Gunny Bagging—			
Foreign	(nominal)		
Domestic	2.75	@	2.90
Sisal Rope No. 1	*4.75	"	—
Sisal Rope No. 2	* —	"	4.00
Mixed Rope	—	"	1.55
Transmission Rope—			
Foreign	(nominal)		
Domestic	2.75	"	3.00
Manila Rope—			
Foreign	(nominal)		
Domestic	5.75	"	—
Soft Jute Rope	4.50	"	5.00
Jute Carpet Threads	3.00	"	3.50
Bleachery Burlap	8.50	"	9.00
Scrap Burlap—			
Foreign	(nominal)		
Domestic	3.00	"	3.25
South American	—	"	3.25
Wool Tares—			
Foreign	(nominal)		
Domestic	4.25	"	—
Aust. Wool Pouches	—	"	3.65
New Zealand Wool Pouches	—	"	3.50
New Burlap Cuttings	4.75	"	5.00
Heavy Baling Bagging	4.00	"	4.25
Paper Mill Bagging	2.50	"	3.00
No. 2 Roofing Bagging	1.35	"	—

* OPA Maximum Prices.

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.04½	@	.04¾
Fancy Percales	.04¼	"	.05
New White No. 1	.06¾	"	.07
New Light Flannelettes	.05½	"	.06
Canton Flannels, Bleached	.06	"	.06¼
Underwear Cutters, Bleached	.06¾	"	.06¾
Underwear Cutters, Unbleached	.05¾	"	.06
Silesias No. 1	.06	"	.06¼
New Black Silesias	.03	"	.03¾
Red Cotton Cuttings	.03½	"	.04
Soft Unbleached	.06½	"	.06¾
Blue Cheviots	.05½	"	.06
Fancy	.02¾	"	—
Washable	.02¾	"	—
Khaki Cuttings	.02¾	"	.03
O. D. Khaki	.03½	"	.03¾
Corduroy	.03¾	"	.03½
New Canvas	.06¼	"	.06½
B. V. D. Cuttings	.06¼	"	.06½

Domestic Rags (Old)

(F. o. b. Boston)

White No. 1—			
Repacked	3.80	@	—
Miscellaneous	3.20	"	—
White No. 2—			
Miscellaneous	2.65	"	—
Twos and Blues, Repacked	2.20	"	—
Old Blue Overalls	2.25	"	2.50
Thirds and Blues, Repacked	2.20	"	—
Miscellaneous	1.80	"	—
Black Stockings	3.50	"	4.00
Roofing Stock—			
No. 1	1.55	"	—
No. 2	1.45	"	—
No. 3	1.35	"	—
No. 4	1.35	"	—
No. 5, Quality A	1.35	"	—
Quality B	1.20	"	—
Quality C	.95	"	—
Old Manila Rope	5.75	"	—

* OPA Maximum Prices.

Foreign Rags

(F. o. b. Boston)

Canvas	(nominal)
Dark Cottons	(nominal)
Dutch Blues	(nominal)
New Checks and Blues	(nominal)
Old Fustians	(nominal)
Old Linsey Garments	(nominal)
New Silesias	(nominal)

CHICAGO

Waste Paper

(F. o. b. Chicago)

OPA Maximum Prices, Baled

Shavings—			
No. 1 Hard White Envelope Cuts, one cut	3.37½	@	—
No. 1 Hard White Shavings, unruled	2.87½	"	—
No. 1 Soft White Shavings	2.50	"	—
Misc.	2.15	"	—
No. 1 White Ledger	2.30	"	—
No. 2 Ledger, colored	2.00	"	—
No. 1 Heavy Books & Magazines	1.92½	"	—
Overissue Magazines	1.67½	"	—
New Manila Envelope Cuttings	2.65	"	—
No. 1 Assorted Old Kraft	1.75	"	—
No. 1 Mixed Paper	.95	"	—
Box Board Cuttings	.72½	"	—
Kraft Corrugated Cuttings	2.25	"	—
Old Corrugated Containers	1.40	"	—
Overissue News	1.00	"	—
No. 1 News	1.00	"	—

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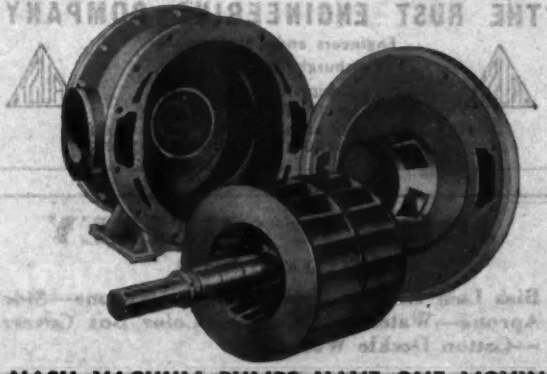

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FORT HOWARD PAPER COMPANY
Green Bay, Wisconsin A-2

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SALESMAN for large folding carton and specialty manufacturer. Unusual opportunities. Give full qualifications, age and draft status. Replies held in strictest confidence. EMPIRE BOX CORPORATION, GARFIELD, N. J. A-2

WANTED—Machine Tender, Master Mechanic, Beater Engineer. Middle aged men preferred. Small .009 straw mill, slow running machines. Keuka Paper Corp., Penn Yan, N. Y. A-2

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WANTED—BEATER ENGINEER—Mid-western mill making high grade rag content bond and ledgers wishes beater engineer with sufficient experience to supervise beating of rag and sulphite. Permanent position for man with right qualifications. Address Box 45-442 care Paper Trade Journal. A-16

CLASSIFIED ADVERTISING

HELP WANTED—5c a word. Double rate for heavy face type. Minimum charge $1.25.

SITUATIONS WANTED—5c a word. Double rate for heavy face type. Minimum charge $1.25. If repeated ½ rate will be charged for each consecutive repetition.

FOR SALE—5c a word. Double rate for heavy face type. Minimum charge $1.25.

WANTED—5c a word. Double rate for heavy face type. Minimum charge $1.25.

OPPORTUNITIES—5c a word. Double rate for heavy face type. Minimum charge $1.25.

Classified advertising space may also be purchased at $3.00 per single column inch.

All classified advertisements are payable in advance.

If box number is used—35 cents additional.

Address Replies

to advertisements appearing under Box Numbers in care of

PAPER TRADE JOURNAL
15 West 47th Street
New York 19, N. Y.

WANTED
PAPER MILL MANAGER

A position is now opened in an operating paper mill, located in Southern Michigan (not Kalamazoo), for a capable and experienced paper mill executive to take full charge; must be familiar with all phases of production and administrative problems.

In reply give full details, including compensation desired, all of which will be confidential. Address Box 45-435 care Paper Trade Journal. A-9

ENGINEER with 6 to 10 years experience in the paper industry for sales, design, erection and operating work in connection with concern building pulp and paper mills abroad. Will probably involve project residence various places abroad portion of time, balance in New York City. Expenses while abroad. First letter must state age, experience, education, draft status, salary expected. Send photo, if available. Give references in paper industry especially equipment firms. Address Box 45-395 care Paper Trade Journal. A-2

WANTED—We need a graduate chemist in our expanding product development laboratory who has a background of paper chemistry and is familiar with all types and kinds of paper coatings including resins and lacquers. Address Box 45-398 care Paper Trade Journal. A-16

WANTED—CHIEF CHEMIST for pulp and paper mill located on Pacific Coast. Apply in own handwriting giving references, experience and other pertinent information. Address Box 45-243 care Paper Trade Journal. TF

WANTED—A recent college graduate in paper chemistry to work in our laboratory on paper coating compounds and heat sealing compounds. Address Box 45-397 care Paper Trade Journal. A-16

MACHINE TENDER for cylinder machine operations. Must be experienced at this particular kind of machine operations. Prefer high school graduate or equivalent. Address Box 45-293 care Paper Trade Journal. TF

WANTED—Chief Engineer and Master Mechanic. Must have paper mill experience. Reply to T. J. Russell, Manager, Sangamon Paper Mills, Eaton, Indiana. A-9

WANTED—Mechanical Engineer with several years' experience in the pulp and paper industry for pulp and paper mill in Middle West. Please state age, experience, salary expected, Draft Status. Address Box 45-426 care Paper Trade Journal. A-9

WANTED—TOUR BOSSES for Roofing Felt Mill. Excellent opportunity for right man. Postwar future. Send complete resume giving experience, etc. to Box 45-427 care Paper Trade Journal. A-9

CHEMIST with organization ability and initiative for responsible position in quality control work with Midwest manufacturer of packaging materials. Background in resins desirable. Address Box 45-428 care Paper Trade Journal. A-16

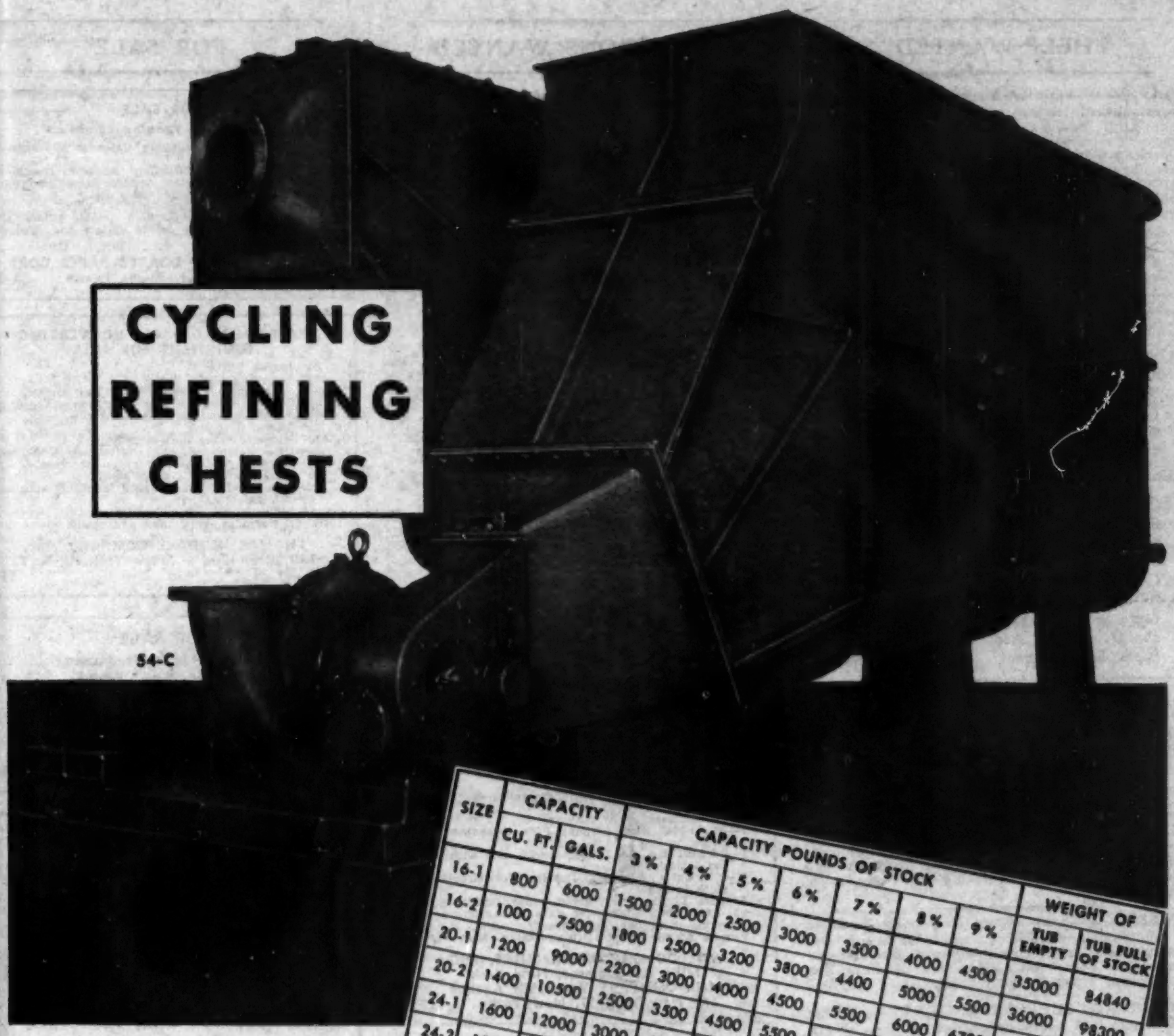
ADJUSTER—Square, flat, specialty machines, excellent opportunity with established firm. Give experience. Address Box 45-438 care Paper Trade Journal. A-9

SALARIED POSITIONS $2,500-$25,000. Post-war plans are creating lifetime opportunities now. This thoroughly organized confidential service of 35 years' recognized standing and reputation carries on preliminary negotiations for supervisory, technical and executive positions of the calibre indicated, through a procedure individualized to each client's requirements. Several weeks are required to negotiate and each individual must finance the cost of his own campaign. Retaining fee protected by refund provision. Identity covered and present position protected. Plan now for post-war security. Send only name and address for details. R. W. BIXBY, INC., 117 Delward Bldg., Buffalo 2, N. Y. TF

WANTED—Two Paper Sheet Cutter Machine Operators for Book and Specialty Mill. Address Box 45-440 care Paper Trade Journal. A-23

MACHINE TENDER on a Fourdrinier Machine. This machine will run between three-hundred (300) and nine-hundred (900) feet a minute. Address Box 45-444 care Paper Trade Journal. A-2

CYCLING REFINING CHESTS



54-C

SIZE	CAPACITY		CAPACITY POUNDS OF STOCK							WEIGHT OF	
	CU. FT.	GALS.	3%	4%	5%	6%	7%	8%	9%	TUB EMPTY	TUB FULL OF STOCK
16-1	800	6000	1500	2000	2500	3000	3500	4000	4500	35000	84840
16-2	1000	7500	1800	2500	3200	3800	4400	5000	5500	36000	98300
20-1	1200	9000	2200	3000	4000	4500	5500	6000	6700	43500	118260
20-2	1400	10500	2500	3500	4500	5500	6500	7000	8000	44500	131720
24-1	1600	12000	3000	4000	5000	6000	7000	8000	9000	46500	146180
24-2	1850	14000	3500	4500	6000	7000	8000	9000	10000	47500	162755
30-1	2400	18000	5000	6000	7500	9000	10500	12000	13500	63800	214320

• It hardly seems logical for a mill to install new preparation equipment but retain old chests that do not have proper contours to permit most efficient circulation. Such misfits invariably defeat objectives sought.

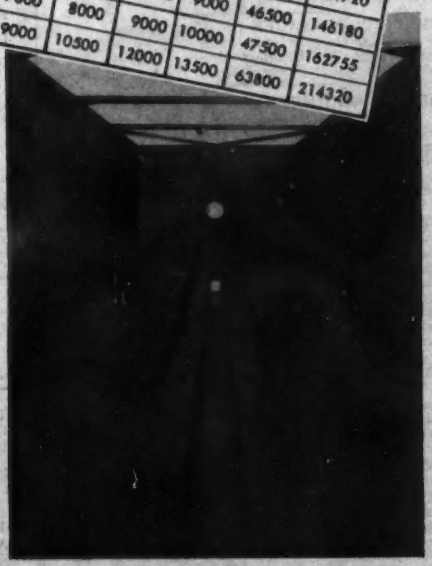
In such situations the logical chest to install is the one here illustrated — an all-metal job properly proportioned for most efficient operation.

This chest will not channel the stock, being similar to a cast-iron beater on the inside. It will handle 8% stock due to the bottom slope. It can be quickly erected and as quickly taken down for relocation elsewhere, if desired. Washdown water can be held to a minimum.

Available in full range of sizes. Chests of all other types also built.

THE BLACK-CLAWSON COMPANY
HAMILTON, OHIO

Dilts
Division: SHARTLE BROS. MACHINE CO., MIDDLETOWN, OHIO
Dilts Machine Works, Fulton, N. Y.



54-A. "Smooth Interior of Standard Paddle Type Chest."

HELP WANTED

PAPER EXPORT SALES MANAGER—Well established leading paper concern needs District Sales Manager to direct sales through already established representatives in various Latin American markets. Knowledge of printing papers also fluent Spanish indispensable. Opportunity advancement for capable party. Describe experience background. Address Box 45-445 care Paper Trade Journal. A-9

SITUATIONS WANTED

PURCHASING AGENT

If you are looking for a capable, honest and aggressive purchasing agent to handle selection of suppliers, expediting, disposal of surplus, initiating use of new materials, inventories, material control, acceptance, subcontracting, traffic and inspection kindly contact box 45-424 care of Paper Trade Journal. A-16

PAPER SALESMAN at present covering the jobbing trade in Pennsylvania, New Jersey, Delaware, Maryland, Virginia and North Carolina as a mill representative desires to operate over the same territory as a representative for three of four non-conflicting lines. Address Box 45-435 care Paper Trade Journal. A-2

SUPERINTENDENT—20 years experience in paper bag conversion of grocery, sacks and aniline or oil ink specialty bags. Capable of handling all bag shop problems. Thorough experience in supervision of help, maintenance and repairing of machines. Address Box 45-355 care Paper Trade Journal. A-2

YOUNG COLLEGE GRADUATE — Experienced in supervision, quality and technical control, also coatings, resins, plastics and board manufacturing—seeks opportunity in paper and allied fields. Address Box 45-381 care Paper Trade Journal. TF

FIRST CLASS all around Master Mechanic, in mills making various weights of board, also tissue, steam and electric equipment. Cylinder and fourdrinier, pulp mills. References. Address Box 45-391 care Paper Trade Journal. A-2

GENERAL SUPERINTENDENT — Wishes change. 25 years experience on free sheets, ground wood specialties, news and Kraft. Fourdrinier and cylinder machines. Age 43. Go anywhere. Prefer Canada. Would take position colorist or personnel manager in large mill. Address Box 45-402 care Paper Trade Journal. A-2

TRAFFIC MANAGER position wanted. 23 years experience with the N. Y. Central System. Age 38. Business ability. Address Box 45-433 care Paper Trade Journal. A-9

PLANT ENGINEER — MILL SUPERINTENDENT—Twenty years experience, in various types of Pulp and Paper mills. Construction. Power Plant Operation. Maintenance. Experimental and development work. Experienced in handling all types of help. Available at once. Address Box 45-409 care Paper Trade Journal. A-2

PERSONNEL DIRECTOR—Age 45. Seven years experience as personnel director concern of over four thousand employees. Familiar with all phases of personnel work particularly in labor negotiations, job evaluation and establishing training programs. Eighteen years manufacturing and sales service experience prior to personnel work. Address Box 45-418 care Paper Trade Journal. A-2

PLANT ENGINEER—Technical graduate with long experience in design, construction, maintenance and operation of Pulp and Paper Mills, desires position. Address Box 45-410 care Paper Trade Journal. A-9

COLLEGE GRADUATE—Age 31. 11 years practical experience in every dept. of board mill and office. Expert knowledge of waste papers, pulp, production methods, costs, government reports and traffic. Desires position with progressive organization. Address Box 45-432 care Paper Trade Journal. A-2

SITUATIONS WANTED

MARKETING EXECUTIVE. High grade man with broad background, who is able to work in dual capacity; having, also, wide experience in paper manufacturing. College education. Age 44. Location immaterial. Address Box 45-436 care Paper Trade Journal. A-16

FOREMAN FINISHER or Converting Plant Supervision—Years diversified experience, Tissue, Wrapping, Bond, Envelope, Waxed Papers, etc., proficient operator instructor, Sheeting, Winding, Trimmer, Scheduling, Shipping, Warehousing etc. Address Box 45-441 care Paper Trade Journal. A-23

SALESMAN or **BRANCH MANAGER** — 24 years experience in selling book and fine papers, have managed branch mill office. Have executive and organizing ability. Would be especially interested in mill without New York representation. Address Box 45-446 care Paper Trade Journal. A-2

FOR SALE

REVAMPING AND BUILDING MILL AND CAN OFFER FOR SALE

One large Breaker Beater complete
One small Beater Complete
1—30" Diameter X 90" Face cylinder mold
1—6x8 Shartle Duplex plunger stock pump
1—New pair cast steel double suspension spring type beater bearings for 8" diameter journal—Noble & Wood beater roll. Never used
1—Used old style lighter beam for 8" diameter journal Noble & Wood beater
1—New reinforced design lighter beam for 8" diameter journal—Noble & Wood beater roll. Pattern No. 663. Never used.
3—200 KVA —33000-2300/4000 volts transformers
1—250 H.P. slip ring motors & controls—450 R.P.M.—3 bearing base and pulley
60—92" Face steel dryer felt rolls—1—7/16" journals
1—20" Face cast iron taper pulley—2 15/16" bore taper 31"x29½"
4—36" diameter x 83" face dryers
1—6" to 10" Cox & Sons Pipe threading machine
1—48"x48" Noble & Wood beater roll with filling installed.
1—40" Noble & Wood impeller for circulation stock in beater.
A visit to the mill would prove profitable as we have many items for sale to numerous to mention. See our superintendent Mr. O. P. Fussell at our plant in Walloomsac, New York.

WALLOOMSAC PAPER MILLS, INC.
Mills: Walloomsac, New York
Main Office: 25 Vanderbilt Avenue
New York 17, New York TF

FOR SALE

1—Standard Horne Jordan with new shell and plug fillings.
1—300 lb. Valley Iron Works high speed Beater of the Holland type. A-1 condition.
1—Knowlton Spiral Core Machine complete with 36" Langston Recutter. Immediate delivery.
1—7-roll 48" wide Holyoke Super Calender Stack, complete with 50 H.P. G. E. a.c. 3 phase 60 cycle, 220 volt motor equipment. Machine in perfect condition.
1—62" Heavy Type Hudson Sharp two-shaft Center Wind Slitter and Rewinder. Very suitable for board work.
1—50" Kidder Bears Cut Slitter and Rewinder.
1—64" Left Hand 4 Knife Carthage Chipper with two new sets of knives.
1—Complete Pulp Drying Machine with 60 Dryers 48" x 140".
1—36" Camachine 44W Low Model Roll Rewinder. Complete and in good condition.
1—82 Lamoyo Pulper complete with 40 H/P A.C. motor equipment. A-1 condition.
1—110" Double-Drum Waldron late type shear cut hydraulic Slitter and Rewinder.
1—12" x 14" Brownell Variable Speed Engine, equipped with Moore & White Speed Change, Governor and Overspeed Protection. A-1 condition.

GIBBS-BROWER COMPANY, INC.
21 East 40th St., New York 16, N. Y.
TF

PAPER COATING MACHINERY — Waxing, Oiling, Gumming, Gluing, Carbon, Laboratory Coating and Treating Machines. High speed. New improvement. MAYER MACHINE COMPANY, Inc., 1155 Scottsville Road, Rochester, 11, N. Y. TF

FOR SALE—Duval Printer for Paper Bags. Available in Brooklyn. Address Box 45-415 care Paper Trade Journal. J-26

FOR SALE

FOR SALE
All in good running condition

2—3 roll Friction Glazing Calender Machines—32" wide
2—Waldron Brush Coating machines complete with festoon drying systems and rewinding machines 42" and 26" wide.
1—Waldron Reeling machine 34" wide
1—Intaglio Printing machine (single color) 32" wide with festoon drying system and rewinding machine.

NARRAGANSETT COATED PAPER CORP.
Pawtucket, Rhode Island A-2

PAPER MILL & PAPER CONVERTING EQUIPMENT FOR SALE

84" Inman Slitter.
42" Fleshing Cloth Slitter.
36" Sheridan Automatic Power Paper Cutter.
44" Seybold Holyoke Aut. mill type Power Cutter.
45" White Automatic Power Cutter.
80" Finley Sheeter.
110" Hamblet heavy duty Sheeter.
68" Rice Barton & Fales Slitter & Rewinder, for use on dry end of paper machines.
120" Moore & White 4-drum Rewinder.
New 62" Two-Roll Back Stand, handling rolls up to 30" diameter.
4 Waldron 36" Paper Reelers
Baling Machines, both hand and power.

THOMAS W. HALL COMPANY, Inc.
120 West 42nd St., New York 18, N. Y.
TF

FOR SALE
New and guaranteed used steel pipe, boiler tubing, valves, fittings, wood and steel tanks, steel buildings

JOS. GREENSPON'S SON PIPE CORP.
NATIONAL STOCK YARDS, Illinois.
S-6

FOR SALE

32 Dryers, 36" dia., 68" face complete with frames, gears and packing boxes
40 Dryers 36" dia., 84" face complete with frames and gears
1—Dryer 48" dia., 120" face

OSBORNE PAPER MILL EQUIPMENT CO.
Fulton, N. Y. A-2

FOR SALE—PUMPS

1—Shartle 10" x 20" Triplex Stock Pump practically new
1—10" x 12" Moore & White Triplex Stock Pump.
1—Beloit 8" x 12" Duplex Stock Pump
1—Frederick 12" x 8" Centrifugal Stock Pump, will handle 100 tons per day against 75 ft. head, bronze impeller, full length base, belt driven.
6—10" inlet 6" outlet Downingtown Centrifugal Stock Pumps with hand cleanouts. Belt driven type.
1—Shartle 10" x 6" Centrifugal Stock Pump.
4—New Centrifugal Water Pumps anti-friction bearings, full length base designed for direct connecting, 100 G.P.M. 75 ft. head.
1—Hill Dean 4" x 4" Centrifugal White Water Pump, anti-friction bearings, either belt driven or direct connected.
1—Hill Dean 10" x 8" White Water Circulating Pump, belt driven.
2—6" x 4" belt driven Fan or Circulating Pumps.

Every pump reconditioned and guaranteed.

OSBORNE PAPER MILL EQUIPMENT CO.
Fulton, N. Y.
A-2

FOR SALE | FOR SALE | FOR SALE

FOR SALE

BEATERS
2—2000 lb. Holyoke Iron Tub Beaters.
1—1000 lb. Dayton Heater.
2—400 lb. Gavit—iron tub beaters.

BLOWER
1—50" Buffalo.
Various other sizes.

CALENDER STACKS
1—11-Roll 92" Face Calender Stack—complete with Drive.
1—36" 7-roll—Holyoke Machine.
1—77" 2-roll—Moore & White.

CENTRAP
1—Shartle Brothers Centrap.

CYLINDER MOULDS
1—48" Diameter x 96" Face.
8—30" diameter x 72" face.
3—30" diameter x 74" face.

DRIVES
1—D. O. James 75 H.P. Speed Reducer with couplings and motor base. Ratio 2.16 to 1. 900 RPM to 418 RPM.
1—Pulmax Drive.

DRYERS
13—60" diameter x 154" face.
1—48" diameter x 94" face.
24—36" diameter x 82" face.
1—24" diameter x 84" face. (Baby).
1—16" diameter x 84" face. (Baby).
1—36" diameter x 116" face.
2—28" diameter x 66" face.

EMBOSSER
1—28" two roll Embossing Calender.

ERKENSATORS
2—I. W. E. Erkensators—bronze construction—complete with motors, starters and distributing box.

FLAT SCREENS
2—8 plate Flat Screens.
1—18 plate Flat Screen, with scraper.
1—12 plate Flat Screen.
2—12 plate Packer Type Flat Screens with steel vats

JORDANS
1—Pony Horne Jordan. Spare New Fillings.
1—Black-Clawson Jordan (belt driven).
1—#9 Emerson Jordan—for direct connection of a motor — requires use of 400 H.P. motor.
1—Smith & Winchester.

PULP EQUIPMENT
1—84" Carthage Chipper—complete and in excellent condition.
1—32" three pocket Glens Falls Grinder (for 27" wood).
3—Rotary incinerators—9' diameter x 20' long.
4—27" four pocket Sandy Hill grinders (for 24" wood—including 1000 H.P. motor for each, starting equipment, etc.).

PULPERS
1—#2 Lannoye Pulper.
1—Jones Pulper — direct connected to 60 H.P. motor—3 phase, 60 cycle, 440 volts —forward and reverse starting.

PUMPS
1—Buffalo Pump—5500 g. p. m., direct connected to 100 H.P. Motor (50' head).
1—Shartle Brothers duplex 10 x 20 stock pump.
1—Moore & White triplex 10 x 12 stock pump.
Various sizes of Centrifugal and Plunger Pumps. Write us regarding your particular requirements.

REELS
1—2 Bowl Reel — 112" face — bowls 20" diameter.
1—2 Bowl Reel—63" face.
1—2 Bowl Reel—110" face.

REFINERS
2—#1 Claflin Refiners.

ROLLS
500—Brass tube—steel tube—rubber covered iron rolls—various sizes.

RUBBER COUCH ROLL
1—72½" Face x 9" diameter (soft rubber).

SAVEALLS
1—Shartle Bros. decker 36" diameter x 60" face, including couch roll.
1—Saveall 35" x 136" cylinder mold, antifriction bearing equipped, including couch roll.

SHREDDERS
1—#25 CRSE Mitts & Merrill Hog.
1—Gilman Shredder—used one year.

SHEETERS
1—110" Horne single knife rotary sheet cutter.
1—48" Langston heavy duty chopper (this is a combination machine, combining a slitter, scorer, sheeter and chopper.)

SIZING MACHINE
1—36" Waldron sizing machine.

SLITTERS
1—114" Two drum Langston Slitter & Winder.
1—110" Beloit slitter (slitter attachment only).
1—114" Two drum Kidder slitter and winder.
1—36" Koegel slitter and winder.

SUCTION BOXES
1—Nash 100" face Suction Box.
3—Brass Suction Boxes—90" drilled face.
2—Brass Suction Boxes—77½" drilled face.

SUCTION COUCH ROLL
1—Sandusky Suction Couch Roll — 18" diameter x 130" face — Complete with Sturtevant Vacuum Pump and drive mechanism.

SUCTION PRESS ROLL
1—Sandusky suction press roll, 14 1/16" diameter x 68" drilled face.

WINDERS
2—65" Cameron Tensions for Winders.

J. J. ROSS CO., 250 Frelinghuysen Avenue, Newark 5, New Jersey
TEL. BIGELOW 3-3720 J-19

We are always in the market to purchase your surplus or idle machinery. What have you to offer?

FOR SALE

DRYERS

Quantity	Diameter	Face
44	48"	44"
1	36"	60"
1	28"	63"
8	28"	62½"
4	36"	64"
2	28"	64"
1	48"	69½"
38	36"	70"
9	36"	72"
1	36"	72¾"
3	28"	72⅝"
3	28"	73"
14	36"	74"
7	28"	74"
30	42"	74"
1	36"	74"
3	36"	76"
1	24"	78"

Quantity	Diameter	Face
2	36"	80¼"
1	28"	80"
6	36"	80½"
1	36"	81"
1	36"	82"
23	36"	82½"
1	24"	82½"
5	36"	85"
3	36"	86"
2	48"	86½"
1	36"	90"
19	36"	95"
10	48"	96"
3	36"	98¼"
59	36"	104"
1	16"	108"
2	24"	108"
4	36"	160"
18	48"	160"

SHARTLE BROTHERS MACHINE CO.
MIDDLETOWN, OHIO A-9

FOR SALE | FOR SALE | FOR SALE

Ross Paper Machinery Co., 17 Porter Ave., Newark 8, New Jersey, Waverly 3-5675

Beloit Fourdrinier Machine

Wire 91" x 65'—22" Suction Couch table rolls, ball bearing equipped—26 Dryers two decked 48" diam. 88" face. Equipped with enclosed spiral bevel gear drives.

146" Pulp Drying Machine—200 ton per day drying capacity.

Prints and additional information on request.

BEATERS
1—2500 lb. Downingtown Iron Tub
1—750 lb. Downingtown Iron Tub
2—1000 lb. Horne Iron Tub
1—1200 lb. Holyoke Wood Tub

CALENDER STACKS
1—9 Roll Lobdell 124" Warren Doctors
1—10 Roll Farrell 104" Warren Doctors
1—11 Roll Pusey & Jones 104" Warren Doctors

CONVERTING EQUIPMENT
1—Bliss Double Head Stitcher
1—Bliss Single Head Stitcher
1—Bliss Box Assembling Machine
1—Better Package Counter Boy Turntable, compressor & Sealing Tape
4—Waterville Grinders
1—42" Parry Liner & Combiner
1—36" Waldron Reeling Machine
1—39" Dampening Machine
1—36" Brush Coating Machine
1—Copper Mixing Tank with agitator—40 gal.
1—Cast Iron Kettle 20" x 24" 2 outlets

DRYERS
40—36" diam. 86" face 3 deck
18—36" diam. 82" face 2 deck
40—28" diam. 96" face 2 deck

FESTOON DRYERS
100" Proctor & Schwartz
60" Proctor & Schwartz

FLAT SCREENS
1—Moore & White 8 Plate
1—Moore & White 10 Plate
1—Sandy Hill Packer 10 Plate
2—Sandy Hill 8 Plate-Scraper
1—Sandy Hill 8 Plate-Scraper New Type Roller Cams.
1—Trimbey Pulp Screen 30 ton cap.

JORDANS
1—E. D. Jones Standard motor drive
1—Dillon No. 2 Motor drive
1—Appleton No. 2 motor drive
1—Noble & Wood Monarch Belt Drive
1—Emerson No. 2 Belt Drive

KNIFE GRINDER
1—72" Seybold automatic

MISCELLANEOUS
1—Warren Broke Target with pump
2—Yankee Dryer doctor oscillators
2—Nugent Oil Filters (new)
2—Beloit Fourdrinier Shakes
1—Oster Pipe Threading Machine 2" to 6" direct conn. to motor

MOTORS
1—30 h.p. 600 R.P.M. 2300 V. 3 Ph. 60 cy.
1—40 H.P. 3600 R.P.M. 2300 V. 3 Ph. 60 cy.

PLATERS
2—Holyoke 2 Roll 18" dia. 36" face

PULP EQUIPMENT
2—Pusey & Jones horizontal Digesters (welded) 7' dia., 24' high 125 lb. pressure
8—Vertical Digesters 15' diam. 47' face 150 lb. pressure
3—Improved No. 2 Knotters
1—Nichols-Herreshoff Lime Kiln
1—Williams No. 30 Bark Hog
1—Sumner Disc Barker 72" dia.

PULPERS
1—Sturtevant Bale Pulper with conveyor & motors
1—Voith Pulper No. 1-20 tons cap.

PUMPS
1—Warren 4800 g.p.m. 80' head
1—Frederick 600 g.p.m. 50' head (stock)
1—Midwest 6" stock pump

REELS
2—Pusey & Jones 104" face 18" dia. bowls
1—Pusey & Jones 115" face 18" dia. bowls
1—2-bowl 100" face 20" dia. bowls

SATURATOR
1—Guyton-Cumfer 5 gates

SAVEALL
1—A. D. Wood cylinder 48" dia. 60" face

SHEETER
1—100" Hamblet Duplex with Reeves Drive

SLITTERS & WINDERS
1—100" Warren two drum.
2—104" Warren two drum.
1—116" Warren two drum.
1—72" Pusey & Jones two drum.
1—140" Warren two drum.

STUFF PUMPS
2—12" x 12" Goulds triplex
8—10" x 20" Shartle triplex
1—12" x 20" Shartle triplex
1—8" x 18" Shartle triplex
1—8" x 10" Worthington triplex
1—12" x 16" Shartle triplex
1—8" x 10" Shartle triplex
1—7" x 16" Shartle duplex

VACUUM PUMPS
2—14" x 20" Connersville
2—12" x 18" Connersville

WET MACHINE
1—84" Improved three roll Hydraulic Enclosed drive (used one year)

CASH PURCHASER OF ALL TYPES OF PAPER, PULP AND CONVERTING EQUIPMENT
WANTED—THREE CYLINDER AND TWO FOURDRINIER MACHINES FOR EXPORT—ANY WIDTH

FOR SALE

BEATERS
1—1000 lbs. Jones, wood tub, roll 61 x 48" Serial No. 46,924, corrugated bars ¾" on the cutting edge, excellent condition.
1—65 x 54" Jones
1—53 x 48" Jones
1—60 x 60" Horne Patent Wood Tub
1—66 x 42" Noble & Wood
1—24 x 18" Dilts

CALENDERS
2—104" 10 roll Machine Calenders

CUTTERS
1—72" Acme with spare new Knives
2—84" Hamblet with Mace Pilers

DRYERS
24—36 x 62"
16—36 x 81" with frame work
20—42 x 74" with frame work
8—36 x 77"
8—37 x 72"

FOURDRINIERS
1—72" Fourdrinier part
1—60" Fourdrinier part, 56' wire

JORDANS
1—Noble & Wood Mammouth Jr. new filling
1—#2 Dillon, new filling

REEL
1—120" Horne
1—130" Rice Barton—2 drums

NAILING MACHINE
1—48" Morgan Nailing Machine

ROSSERS
2—Krause

PULPERS
1—#2 Lanneye
1—#1 Lanneye

ROTARIES
2—Loring 8" x 20" with Drive and Reducing Valves suitable for 75 lbs. pressure

FRANK H. DAVIS COMPANY
175 Richdale Ave., Cambridge 40, Mass.
A-16

FOR SALE

1—Uniform speed reel with drum 104" wide. Pope type built by Beloit Iron Works.

Shartle Brothers Machine Co.
Middletown, Ohio
A-9

FOR SALE

1—Lobdell Roll Grinder, will take rolls 156" face 30" dia.
1—Lobdell Roll Grinder will take rolls 24" dia., 144" centers

OSBORNE PAPER MILL EQUIPMENT CO.
Fulton, N. Y.
A-2

FOR SALE

1—Downingtown Suction Felt Roll 106" face 10" dia. complete with anti-friction bearings, used less than two years

OSBORNE PAPER MILL EQUIPMENT CO.
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A-2

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Valley Iron Works Co.

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Weber, Herman G.

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Valley Iron Works

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Farrel-Birmingham Co., Inc.
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Noble & Wood Machine Co.
Shartle Brothers Machine Co.
Simonds Worden White Co.
Valley Iron Works Co.

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The Cincinnati Rubber Mfg. Co.
Graton & Knight Company
The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc.
J. E. Rhoads & Sons
United States Rubber Co.
T. B. Wood's Sons Company
Worthington Pump & Machinery Corp.

BLEACHING APPARATUS
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Perkins & Sons, Inc., B. F.
Moore & White Co.
Niagara Alkali Co.
Noble & Wood Machine Co.
Pennsylvania Salt Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

BLOW PIPES & PITS
Montague Machine Co.
Moore & White Co.
Murray Mfg. Co., D. J.
Walworth Company

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Kalamazoo Tank & Silo Co.
Valley Iron Works Co.

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Farrel-Birmingham Co., Inc.
Lobdell Car Wheel Co.
Moore & White Co.
Black-Clawson Company
Perkins & Son, Inc., B. F.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
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Smith & Winchester Mfg. Co.
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Valley Iron Works Co.

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Dilts Machine Works
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PACKING
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United States Rubber Co.

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Pusey & Jones
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Montague Machine Co.
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PLUGS
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The Noble & Wood Machine Co.
Shartle Brothers Machine Co.

PRESSES
Black-Clawson Company
Farrel-Birmingham Co.
Dietz Machine Wks.
Thomas W. Hall Co.
Hudson-Sharp Machine Co.
Paper Converting Machine Co., Inc.
Potdevin Machine Co.
Rotogravure Engineering Co.
Shartle Brothers
Valley Iron Works Co.
Waldron Corp., John
Weber, Homer G.

PUG MILLS
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Ilof Hansson, Inc.
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Price & Pierce, Ltd.
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Dorr Company
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De Laval Steam Turbine Co.
Frederick Iron and Steel Co.
Hills-McCanna Co.
Ingersoll-Rand Co.
Johnson Corp.
Moore & White Co.
Nash Engineering Co.
Noble & Wood Machine Co.
Paper Converting Mch. Co.
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The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Warren Steam Pump Company
Worthington Pump & Machinery Corp.

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Pusey & Jones
Ross Engineering Corp. J. O.
Valley Iron Works Co.

RECTANGULAR BINS
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REELS
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Downingtown Mfg. Co.
De Laval Steam Turbine Co.
Hudson Sharp Machine Company
The Kohler System Company
Montague Machine Co.
Moore & White Co.
Paper Converting Mch. Co.
Rodney Hunt Machine Co.
Rotogravure Engrg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.

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Appleton Machine Co.
Bahr Brothers Mfg. Co.
Bauer Brothers Co.
Dilts Machine Works
The Hermann Manufacturing Co.
E. D. Jones & Sons Co.
Murray, D. J. Mfg. Co.
Noble & Wood Machine Co.
Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sprout, Waldron & Co.
Sutherland Refiner Corp.
Valley Iron Works

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Armstrong Machine Works
Bird Machine Company
The Bristol Company
The Brown Instrument Co.
The Foxboro Company
Jones, E. D., & Sons Co.
General Electric Co.
Johnson Corp.
Leeds & Northrup Company
National Technical Laboratories
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Taylor Instrument Companies
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American Resinous Chemicals Corp.
The Resinous Products & Chemical Co.

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Farrel-Birmingham Co.
Improved Paper Machy. Corp.
Lobdell Co.
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D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
Perkins, B. F., & Sons Co.
Pusey & Jones Corp.
Rochlen Engraving Co.
J. J. Ross Company
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Shenango-Penn Mold Co.
Sinclair Co.
Smith & Winchester Mfg. Co.
Stearns Magnetic Mfg. Co.
United States Rubber Co.
Valley Iron Works Co.
Waldron Corp., John

ROLL COVERS
The Cincinnati Rubber Mfg. Co.
Youngstown Welding & Engrg. Co.

ROLL STANDS
Cameron Machine Co.
Johnstone Eng. & Machine Co.
The Kohler System Company
Moore & White Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.

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Traylor Engineering & Mfg. Co.

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Black-Clawson Company
Moore & White Co.
Noble & Wood Machine Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman C.

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Builders-Providence, Inc.
Merrick Scale Mfg. Co.

SCREEN PLATES
Pitchburg Screen Plate Co.
Magnus Metal Corp.
Morey Paper Mill Supply Co.
Union Machine Co.
Union Screen Plate Co.

SCREENS
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Appleton Wire Works
Appleton Machine Co.
Bird Machine Company
Carthage Machine Co.
Dilts Machine Works, Inc.
Downingtown Mfg. Co.
Harrington & King Perforating Co.
Hendrick Manufacturing Co.
E. D. Jones & Sons Co.
Montague Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
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Valley Iron Works Co.

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SHEET MACHINES
Thomas W. Hall Co.
The Hermann Manufacturing Co.
Noble & Wood Machine Co.
Rotogravure Engrg. Co.
Valley Iron Works Co.

SHOWER PIPES
Bird Machine Company
A. E. Broughton & Co.
Downingtown Mfg. Co.
Improved Paper Machy. Corp.
Moore & White Co.
Shartle Bros. Mach. Co.
Smith & Winchester Mfg. Co.

SHREDDERS
Bauer Brothers Co.
Carthage Machine Co.

SIZES
American Cyanamid & Chemical Co.
American Resinous Chemicals Corp.
Black-Clawson Company
The Dow Chemical Co.
du Pont, E. I., de Nemours & Co.
National Oil Products Co.
Paper Makers Chemical Department, Hercules Powder Co.
Pioneer Salt Company
Socony-Vacuum Co.
Philadelphia Quartz Co.

SLITTERS
Black-Clawson Company
Cameron Machine Co.
Carthage Machine Co.
Dietz Machine Works
Downingtown Mfg. Co.
Thomas W. Hall Co., Inc.
Hamblet Machine Co.
Hudson Sharp Machine Company
Johnstone Eng. & Machine Co.
Langston Co., Samuel M.
Moore & White Co.
D. J. Murray Mfg. Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Waldron Corp., John

SPRAY NOZZLES
The Spray Engineering Co.

STAINLESS STEEL
Allegheny Ludlum Steel Co.
Eastern Stainless Steel Corp.
Industrial Steels, Inc.

STARCH
American Cyanamid & Chemical Corp.
Clinton Co.
National Starch Products, Inc.
Stein, Hall & Co., Inc.

WHERE TO BUY

STEAM SPECIALTIES
Johnson Corp.
Shartle Bros. Mch. Co.
Stickle Steam Specialties Co.

STRAPPING & STRAPPING MACHINES
Acme Steel Company
The Stanley Works

STUFF CHESTS
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

SUCTION BOXES
Black-Clawson Company
A. E. Broughton & Co.
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Westinghouse Electric Corp.

SULPHUR
American Cyanamid & Chemical Corp.
Stauffer Chemical Company
Texas Gulf Sulphur Co.
Witco Chemical Company

SULPHUR BURNERS
Valley Iron Works Co.

TALC
American Cyanamid & Chemical Corp.
W. H. Loomis Talc Corp.
International Talc Company

TANKS
Frederick Mfg. Co.
E. D. Jones & Sons Co.
Kalamazoo Tank & Silo Co.
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
The Noble & Wood Machine Co.
H. K. Porter Company Inc.
Rodney Hunt
J. O. Ross Engrg. Corp.
Shartle Brothers Machine Co.
Traylor Engineering & Mfg. Co.
United States Rubber Co.
Waldron Corp., John
Youngstown Welding & Engrg. Co.

THICKENERS, DECKERS & SAVE-ALLS
Bird Machine Company
Bulkley, Dunton Pulp Co. Inc.
Carthage Machine Co.
Dilts Machine Works
Dorr Co.
Downingtown Mfg. Co.
Montague Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

TITANIUM
E. I. Du Pont de Nemours & Co.
Titanium Pigment Co.
R. T. Vanderbilt Co.
Witco Chemical Company

TOOLS
Acme Steel Company
Ingersoll-Rand Co.
The Stanley Works
Walworth Company

TRUCKS
Elwell Parker Electric Co.
Wright-Hibbard Ind. Elec. Truck Co.

TRAPS
Armstrong Machine Works
Crane Co.
Grinnel Company
Johnson Corporation
Shartle Bros. Mch. Co.

TUBS
Rodney Hunt Machine Co.
Noble & Wood Machine Co.
Shartle Brothers
Valley Iron Works Co.

TURBINES
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
General Electric Company
Hunt, Rodney, Mach. Co.
Westinghouse Electric Corp.
Worthington Pump & Machinery Corp.

USED EQUIPMENT
Frank H. Davis Company
Gibbs-Brower Co.
Thomas W. Hall Co.
Noble & Wood Machine Co.
Rotogravure Engrg. Co.
J. J. Ross Company
Shartle Brothers Machine Co.

VALVES
The Bristol Company
Crane Company
Dilts Machine Works
Fibre Making Processes, Inc.
The Foxboro Company
Hills-McCanna Co.
E. D. Jones & Sons Co.
Kennedy Valve Mfg. Co.
Magnus Metal Corp.
D. J. Murray Mfg. Co.
Noble & Wood Machine Co
The Permutit Company
William Powell Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co
Taylor Instrument Companies
Valley Iron Works Co.
Walworth Company

VATS & VAT PARTS
Union Machine Co.
Union Screen Plate Co.

WASHERS
Bird Machine Company
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Rodney Hunt Machine Co.
Shartle Brothers Machine Co.
Valley Iron Works Co.

WATER CONDITIONING
The Permutit Company

WAXING MACHINERY
Black-Clawson Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman G.

WELDING EQUIPMENT
Allis-Chalmers Mfg. Co.
General Electric Company
Walworth Company
Westinghouse Electric Corp.

WET MACHINES
Black-Clawson Co.
Carthage Machine Co.
Downingtown Mfg. Co.
Moore & White Co.
Montague Machine Co.
Noble & Wood Machine Co.
Pusey & Jones Corp.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

WINDERS AND REWINDERS
Black-Clawson Company
Cameron Machine Co.
Dietz Machine Works
Downingtown Mfg. Co.
Thomas W. Hall Co.
Hudson-Sharp Mach. Co.
Langston Co., Samuel M.
Johnstone Eng. & Machine Co.
The Kohler System Company
Montague Machine Co.
Moore & White Co.
Paper Converting Mch. Co.
Potdevin Machine Co.
Pusey & Jones Corp.
Rotogravure Engrg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Waldron Corp., John

WIRES
Appleton Wire Works
Black-Clawson Company
Bulkley, Dunton Pulp Co. Inc.
Cheney Bigelow Wire Works
Hayden Wire Works
International Wire Works
Lindsay Wire Weaving Co.
Shartle Brothers Machine Co.

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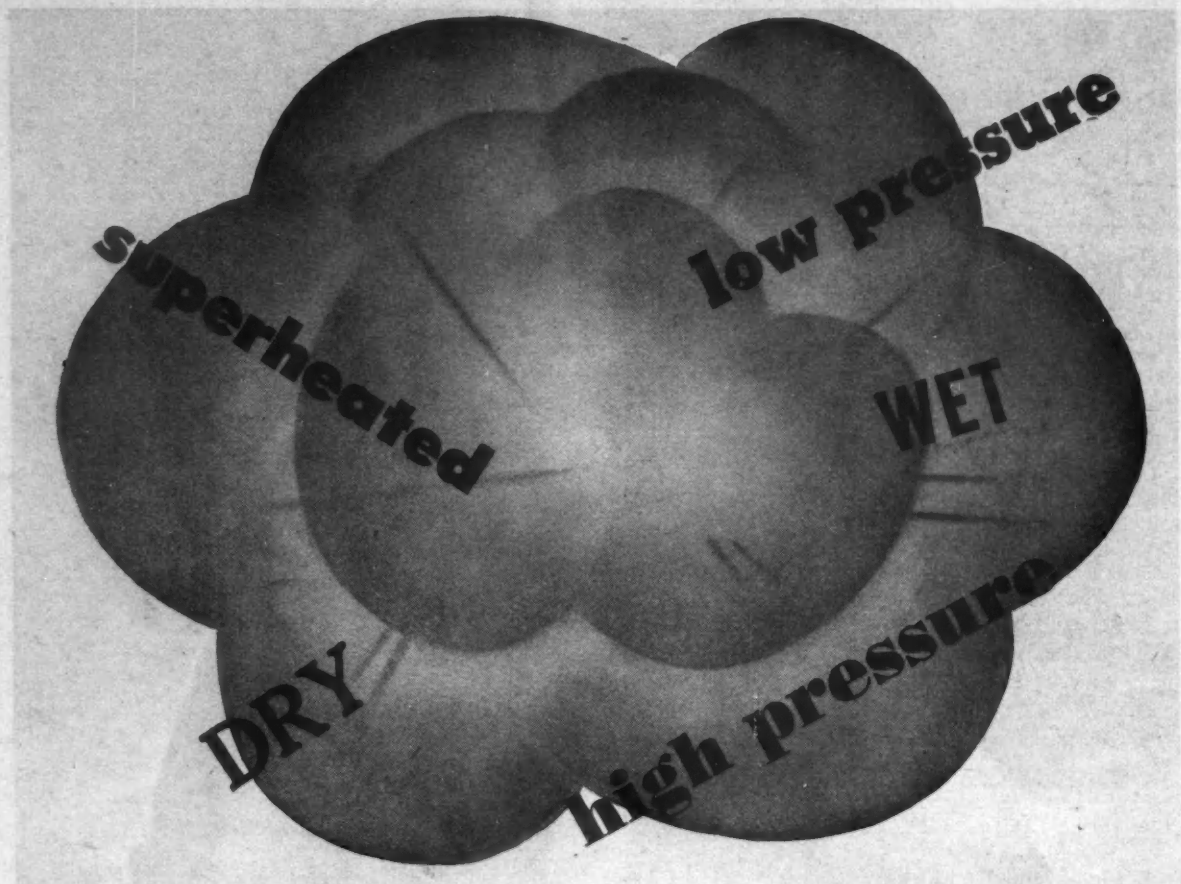

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